

## **Oral composition**

### **Abstract**

<P>PROBLEM TO BE SOLVED: To provide an oral composition having excellent sense of use and moisture-retaining effects. <P>SOLUTION: The oral composition contains an extract of humic soil. The extract of the humic soil is obtained by carrying out the extraction by adding water to the humic soil, filtering the obtained extract by using a filter of 0.1-0.2 µm, and purifying the obtained filtrate. The oral composition is free from an antiseptic agent. The oral composition contains cetylpyridium chloride besides them. <P>COPYRIGHT: (C)2007,JPO&INPIT

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Japan

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Other languages: Japanese

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Claims (4)

Hide Dependent ^ translated from Japanese

An oral composition comprising a humus soil extract. The humus soil extract is obtained by using a filtrate obtained by extracting water by adding water to the humus soil and filtering the obtained extract using a 0.1 to 0.2 µm filter. The composition for oral cavity according to claim 1. The composition for oral cavity of Claim 1 or 2 which does not contain a preservative. The composition for oral cavity according to any one of claims 1 to 3, comprising cetylpyridinium chloride.

**Description** translated from Japanese

The present invention relates to an oral composition.

Conventionally, oral compositions generally include an inorganic powder such as calcium phosphate or silicic acid as an abrasive (base), and a surfactant such as sodium lauryl sulfate or sodium lauroyl sarcosine as a foaming agent. (For example, refer to Patent Document 1).

However, such bases and foaming agents have a problem that bitterness and odor are relatively strong, and the usability of the oral composition is impaired.

In order to solve such a problem, although a fragrance | flavor, a sweetener, etc. are mix | blended with the composition for oral cavity, it was difficult to fully prevent the above problems. In particular, there was a problem that bitterness etc. remained in the oral cavity after using the oral composition.

Moreover, in the conventional composition for oral cavity, there also existed a problem that the inside of an oral cavity dried unintentionally (the inside of a mouth dried) after use.

In addition, conventional oral compositions contain preservatives such as parabens and sodium benzoate for the purpose of preventing deterioration of the product, but such preservatives also cause bitterness and the like. There was a problem of impairing the feeling of use.

JP 2001-131039 A

The objective of this invention is providing the composition for oral cavity excellent in the usability | use\_condition and the moisturizing effect.

Such an object is achieved by the present inventions (1) to (4) below.

- (1) An oral composition comprising a humus soil extract
- (2) The humus soil extract is extracted by adding water to the humus soil, and using the filtrate obtained by filtering the obtained extract using a 0.1-0.2 µm filter. The composition for oral cavity as described in said (1) which is obtained.
- (3) The composition for oral cavity as described in said (1) or (2) which does not contain antiseptic | preservative.
- (4) The composition for oral cavity according to any one of the above (1) to (3), which contains cetylpyridinium chloride.

ADVANTAGE OF THE INVENTION According to this invention, the composition for oral cavity excellent in the usability | use\_condition and the moisturizing effect can be provided.

Hereinafter, preferred embodiments of the oral composition of the present invention will be described in detail.

The oral composition in the present specification is used in the oral cavity, and is a dentifrice such as a toothpaste, a powder dentifrice, a liquid dentifrice, a liquid dentifrice, a troche, a tablet, Includes creams, ointments, patches, mouthwashes, chewing gums, and the like.

The composition for oral cavity of the present invention is characterized by containing a humus soil extract.

Humus is usually decomposed, synthesized and organically decomposed by anaerobic microorganisms, such as seaweed, plants, algae, seafood, and other minerals deposited on the bottom of the seabed, lakes and swamps over 5 million years ago. For example, it exists as a layer of about 10 m in about 20 m underground.

Humus is composed of many components such as amino acids, vitamins, proteins, enzymes, and minerals.

The humus soil extract used in the present invention contains a substance extracted from such humus soil using water, as will be described in detail later.

Humic acid extracts include humic acid, fulvic acid, humic substances such as humic substances, lipolytic enzymes such as lipase, alcohol degrading enzymes such as alcohol dehydrogenase, proteins, amino acids, fatty acids, organic Contains acids, vitamins, minerals and reducing substances.

Humic acid, also called humic acid, is a component that forms most of the organic and coalaceous matter in the soil. Although the chemical structure of humic acid is unknown, it is a condensate of a polyphenolic aromatic compound and a nitrogen-containing compound and has a phenolic hydroxyl group and a carboxyl group. However, humic acid cannot be judged decisively because its molecular weight and components change greatly depending on the degree of progress of humus, but 50-55% contains amino acids, hexosamine, polycyclic aromatics, oxygen-containing functional groups. It is considered that the remainder is a compound with unknown chemical structure and many double bonds.

Such a humus soil extract has an antibacterial / bactericidal action, a moisturizing action, an antioxidant action, an antiseptic action, a surface active action, an active oxygen inactivating action, a deodorizing action and the like.

These actions can be obtained by enzymes synthesized by microorganisms, enzymes obtained by degradation of dead microorganisms, and amino acids, proteins, vitamins synthesized by microorganisms from the plant bodies of the grass family that first form humus. It is obtained by the interaction between enzymes and minerals such as magnesium, calcium, sodium, potassium, and aluminum deposited by igneous rocks. In particular, the mineral contains a large amount of ions such as aluminum, magnesium, sodium, calcium, etc., and the pH value rises after ion exchange, so the sterilization mechanism of the humus soil extract is humus. I think that the place which influences the low pH and mineral which an acid shows is large.

By the way, the conventional oral composition generally contains a surfactant such as sodium lauryl sulfate or sodium lauroyl sarcosine as a foaming agent, and an inorganic powder such as calcium phosphate or silicic acid as an abrasive (base). It is. However, such bases and foaming agents have a problem that bitterness and smell are relatively strong, and the usability of the oral composition is impaired. In order to solve such problems, the composition for oral cavity contains a fragrance, a sweetening agent, a wetting agent and the like, but it has been difficult to sufficiently prevent the above problems. In particular, there was a problem that bitterness etc. remained in the oral cavity after using the oral composition. Moreover, in the conventional composition for oral cavity, there also existed a problem that the inside of an oral cavity dried unintentionally (the inside of a mouth dried) after use. In addition, the conventional oral composition contains a preservative such as paraben or sodium benzoate for the purpose of preventing the deterioration of the product, and such a preservative also causes bitterness and is good. It was difficult to obtain a feeling of use.

Therefore, as a result of intensive studies, the present inventors masked bitterness, base odor, etc., which were problems in conventional oral compositions, by using an oral composition containing a humus soil extract. I found out that I can. Moreover, it discovered that the dryness in the oral cavity after use could be relieved. As a result, it has been found that an oral composition having excellent usability and moisturizing effect can be provided.

In addition, according to the present invention, by using the humus soil extract, bacteria in the oral cavity can be sufficiently sterilized, so that it is possible to prevent tooth decay, periodontal disease, etc. while taking into consideration the influence on the human body. it can.

Moreover, the compounding quantity of antiseptic | preservative can be decreased by using a humus soil extract. Thereby, a better feeling of use can be obtained. In particular, according to the present invention, it is possible to effectively prevent the oral composition from decaying without using a preservative.

Moreover, since humus soil extract has the function as surfactant by including humus soil extract, content of surfactant can be decreased. As a result, the composition for oral cavity of the present invention is more gentle to the human body.

Moreover, bad breath can be prevented by the deodorizing effect of the humus soil extract.

The content (blending amount) of the humus soil extract as described above is preferably 1 to 60 wt%, more preferably 5 to 50 wt%, and even more preferably 10 to 30 wt%. Thereby, the above-mentioned effect becomes more remarkable.

In the oral composition of the present invention, various components may be blended depending on the dosage form. For example, when the composition for oral cavity of the present invention is applied to a toothpaste, an abrasive, a wetting agent, a binder, a foaming agent, a sweetener, an antiseptic, a fragrance component, a medicinal component, and the like can be blended.

An abrasive | polishing agent is a component which has a cleaning effect.

As abrasives, silica-based abrasives such as silica gel, precipitated silica, pyrogenic silica, hydrous silicic acid, silicic anhydride, zeolite, aluminosilicate, zirconosilicate, dicalcium phosphate dihydrate, dicalcium phosphate Non-hydrated toothpaste calcium hydrogen phosphate, calcium pyrophosphate, tribasic magnesium phosphate, tribasic calcium phosphate, aluminum hydroxide, alumina, light calcium carbonate, heavy calcium carbonate, magnesium carbonate, zirconium silicate, synthetic resin system An abrasive | polishing agent etc. are mentioned, Among these, 1 type (s) or 2 or more types can be used together.

Although the compounding quantity of an abrasive | polishing agent is not specifically limited, 3-60 wt% is preferable and it is more preferable that it is 10-45 wt%.

The wetting agent is a component that prevents unintentional drying of the oral composition.

Examples of the wetting agent include polyhydric alcohols such as glycerin, concentrated glycerin, diglycerin, sorbitol, maltitol, dipropylene glycol, propylene glycol, 1,3-butylene glycol, and xylitol. More than one species can be used in combination.

Although the compounding quantity of a wetting agent is not specifically limited, 1-60 wt% is preferable and it is more preferable that it is 5-50 wt%.

The binder is a component for imparting an appropriate viscosity to the oral composition (dentifrice).

Examples of the binder include carrageenan  $(\iota, \lambda, \kappa)$ , alginic acid, sodium alginate, propylene glycol ester alginate, calcium-containing sodium alginate, potassium alginate, calcium alginate and derivatives thereof, xanthan gum, guar gum, Examples thereof include gelatin, agar, sodium carboxymethyl cellulose, hydroxyethyl cellulose, sodium polyacrylate, and the like, and one or more of these can be used in combination.

Although the compounding quantity of a binder is not specifically limited, 0.1-5.0 wt% is preferable and it is more preferable that it is 0.5-3.0 wt%.

A foaming agent is a component for improving the cleaning effect in the oral cavity.

Examples of the foaming agent include sodium lauryl sulfate, sodium lauroyl sarcosine, sodium alkylsulfosuccinate, sodium coconut oil fatty acid monoglycerol sulfonate, sodium  $\alpha$ -olefin sulfonate, N-acyl glutamate and the like, 2-alkyl- N-carboxymethyl-N-hydroxyethylimidazolinium betaine, maltitol fatty acid ester, sucrose fatty acid ester, polyglycerin fatty acid ester, fatty acid diethanolamide, polyoxyethylene sorbitan monostearate, polyoxyethylene hydrogenated castor oil, polyoxy Ethylene fatty acid ester etc. are mentioned, Among these, 1 type (s) or 2 or more types can be used together.

Although the compounding quantity of a foaming agent is not specifically limited, 0.1-10.0 wt% is preferable and it is more preferable that it is 0.5-5.0 wt%.

Examples of the sweetening agent include saccharin sodium, aspartame, trehalose, stevioside, stevia extract, paramethoxycinnamic aldehyde, neohesperidyl dihydrochalcone, perilartin, and the like, and one or more of these may be used in combination. it can.

Although the compounding quantity of a sweetening agent is not specifically limited, 0.005-5.0 wt% is preferable and it is more preferable that it is 0.01-3.0 wt%.

Examples of the fragrance component include I-menthol, anethole, menthone, cineol, limonene, carvone, methyl salicylate, ethyl butyrate, eugenol, thymol, cinnamic aldehyde, trans-2-hexenal, etc. Two or more kinds can be used in combination. Although these components may be mix | blended with a single item, you may mix | blend the essential oil etc. which contain these. In addition to the above fragrance components, fragrance components such as aliphatic alcohols and esters thereof, terpene hydrocarbons, phenol ethers, aldehydes, ketones, and lactones, and essential oils may be blended within a range that does not interfere with the effects of the present invention.

Although the compounding quantity of a fragrance | flavor component is not specifically limited, It is preferable that it is 0.02-2 wt%, and it is more preferable that it is 0.05-1.5 wt%.

Medicinal components include hinokitiol, chlorhexidine salts, cetylpyridinium chloride, benzalkonium chloride, benzethonium chloride, bisabolol, triclosan, isopropylmethylphenol, and the like, tocopherol, d-tocopherol, dl-α-tocopherol, acetic acid-α- Vitamin E and its derivatives such as tocopherol, dl-α-tocopherol acetate, tocopherol acetate, α-tocopherol, lysozyme chloride, monofluorophosphate, sodium fluoride, potassium fluoride, sodium monofluorophosphate, polyethylene glycol, polyvinylpyrrolidone, Zeolite, ascorbic acid and its derivatives, ε-aminocaproic acid, tranexamic acid, aluminum hydroxyl allantoin, aluminum lactate, di Hydrocholesterol, glycyrrhetinic acid, glycyrrhizinate, copper chlorophyllin salt, guaiazulene sulfonate, dextranase, pyridoxine hydrochloride and the like can be mentioned, and one or more of these can be blended.

In addition, among the above, for example, when a bactericidal agent is used as a medicinal component, an excellent caries prevention effect, periodontal disease due to a synergistic effect of the bactericidal effect of the humus soil extract and the bactericidal effect of the bactericide above. Demonstrate the preventive effect.

In particular, when cetylpyridinium chloride is used among the above-described bactericides, the above-described effects are more remarkably exhibited.

Moreover, among the above-mentioned, when vitamin E and its derivative are used as a medicinal component, for example, the absorption to the oral tissue is promoted by the humus soil extract, and a remarkable blood circulation promoting effect is exhibited.

In addition, among the aforementioned, when glycyrrhizinates are used as medicinal ingredients, they exhibit an excellent periodontal disease prevention effect due to the active oxygen inactivating action of humus soil extract and the anti-inflammatory action of glycyrrhizinates. To do.

The compounding amount of the active ingredient in the oral composition varies depending on the type and the like, but is preferably 0.001 to 5.0 wt%, and more preferably 0.01 to 3.0 wt%.

In addition to the above-mentioned components, for example, pigments such as Blue No. 1, pigments such as titanium oxide, antioxidants such as dibutylhydroxytoluene, chelating agents such as edetate, cha extract, tea dry distillation liquid, sodium glutamate And so on.

In addition, the composition for oral cavity of this invention which combined the said component can be manufactured according to a conventional method, The manufacturing method is not specifically limited. The obtained composition such as a toothpaste can be used by being filled into an aluminum tube, a laminate tube, a glass vapor deposition tube, a plastic tube, a plastic bottle, an aerosol container or the like.

Next, the purification method of the humus soil extract used for the composition for oral cavity of this invention is demonstrated.

The humus soil used for refining the humus soil extract can be collected from any of them, but humus soil collected at Kara Nishina, Moriyama-cho, Kitakagi-gun, Nagasaki Prefecture is particularly preferable.

The collected humus soil contains moisture and is sticky like soil taken from a paddy field, and is subjected to an extraction process after two drying steps of rough drying and precision drying.

The drying process dries and subdivides the humus soil, activates the action of aerobic microorganisms to suppress the action of anaerobic bacteria, performs solar thermal sterilization, and at the same time absorbs ultraviolet rays, etc. (photosynthesis) to absorb amino acids, It is thought to activate (ripen) vitamins and enzymes. Thereby, it is thought that beneficial effects, such as an antioxidant effect and a corrosion-proof effect, are produced. In addition, by performing the drying process in two stages, it is possible to obtain a uniform corrosive soil extract material with uniform constituent components, removal of mud other than humus soil, and little variation in pH during extraction.

In the rough drying described above, the collected humus soil having a diameter of about 5 to 50 cm is rained on a material that is not mixed with humus such as concrete, and is dried for 6 months to 1 year in a sunshine condition (sunlight). Is done. During this time, it is preferable to turn the humus soil upside down so that the sun is well exposed. This process turns the humus soil into a dry mass. Next, it is further dried in a greenhouse (precision drying).

This drying is performed for a minimum of one month, usually 1.5 to 2 months. As a result, the lump is further dried, and the lump is further pulverized by a cultivator or the like to make it further sandy. The term "humus soil" as used herein refers to dried and crushed humus soil obtained through the above-described steps. Such humus is commercially available, for example, as a bag of FCM powder from Karako Sangyo Co., Ltd.

The humus soil extract used in the present invention is purified by using the above-described humus soil extracted with water.

Any water may be used for extraction, and for example, ground water, well water, tap water, purified water, distilled water and the like can be used. In particular, in order to obtain an extract with a low pH, water containing a large amount of mineral components is preferable, and groundwater and well water containing minerals are preferable because they do not contain a chlorine-based disinfectant.

Extraction can be performed by stirring humus soil and water. The temperature during extraction is usually room temperature. The stirring time is usually 1 to 3 hours, preferably 2 to 3 hours.

The preferred ratio of humus soil to the water used is from 1: 1 to 1: 5, further from 1: 3 to 1: 5, in particular 1: 5 (weight / volume ratio). If the amount of water is less than the above range, the yield of the extract with respect to the used humus soil will be small, and even if the amount is small, the resulting pH will not be lower than a certain value, which is meaningless. On the other hand, if the amount of water is more than the above range, the pH of the resulting extract will be higher than 2.99, and depending on the type of bacteria, the sterilization and sterilization effects may not be sufficiently obtained.

After completion of stirring, the mixture is allowed to stand for 2 to 4 weeks, preferably about 3 weeks to settle the suspended fine particles, and then the supernatant is usually subjected to a filtration process such as decantation, suction, and pre-filtration with a 50 to 100 µm bag filter. Separation is performed according to the separation method used. When the suction port is located 5-10 cm above the interface between the supernatant and the humus soil layer, and when suctioning, the supernatant can be sucked in at a high yield without sucking the humus soil layer. it can.

Next, the extract is filtered using a filter having a pore size of 0.1 to 0.2 µm. By carrying out this filtration, it is possible to remove germs and to remove suspended matters, suspensions or insoluble substances that precipitate over time.

The filter medium of the filter is not limited as long as it does not affect the filtrate, and specific examples include nylon, polypropylene, polyvinylidene fluoride, and the like. Of these, polyvinylidene fluoride is preferred.

Filtration can be performed under pressure or under reduced pressure, but is generally performed under pressure. The method is carried out, for example, by setting a membrane filter cartridge of the above material in a housing, connecting it to a pressurized tank and pumping it at a pressure of <sup>2</sup> kg / cm <sup>2</sup> or less. It is preferable to perform preliminary filtration before this filtration from the viewpoints of improving the efficiency of filtration and reducing the burden on the filtration device. In practice, it is sufficient to filter with a 50-100 µm bag filter.

The filtrate obtained preferably has a pH of 2.50 to 2.99, more preferably a pH of 2.85 to 2.95, in particular a pH of 2.9.

The filtrate thus obtained may be added as it is as a humus soil extract, or may be further subjected to a treatment such as a heat treatment.

As mentioned above, although the composition for oral cavity of this invention was demonstrated, this invention is not limited to this. For example, the composition for oral cavity of this invention can mix | blend the component which has arbitrary functions other than the component mentioned above.

Next, specific examples of the present invention will be described.

[Humus soil extract]

First, a humus soil extract was obtained as follows.

Humus was collected from a wetland in Karabe Nishina, Moriyama-machi, Kitatakagi-gun, Nagasaki Prefecture. The collected humus soil was dried for about one year on concrete on the sun.

Next, it was further dried in a greenhouse for 1.5 months. The obtained humus soil was pulverized into particles having a particle size of about 0.01 to 0.5 mm.

About 140 kg of the obtained humus soil was put in a 1 t tank (made of polyethylene) (the capacity when it was put in the 1 t tank was about 0.6 m <sup>3</sup>), and 700 liters of water (mineral water collected at the foot of Mount Aso) was added. This was stirred at room temperature for about 2 hours using a bamboo spatula and allowed to stand for 3 weeks to settle the suspended fine particles, and then the supernatant liquid having a pH of 2.7 was sucked out with a pump. The amount of the supernatant taken out was about 600 kg.

The obtained extract was pre-filtered with a bag filter, and then filtered with a filter (pore size: 0.2 µm, trade name: filter cartridge 0.2 µmM CY4440NFPH4, manufactured by Nippon Pole Co., Ltd.) to obtain a humus soil extract having a pH of 2.9. Got.

[Oral composition]

Next, using the humus soil extract obtained as described above, a dentifrice (oral composition) was produced by a conventional method according to the following formulation (unit: wt%).

(Example 1)
Humus soil extract: 10.0
Cetylpyridinium chloride: 0.05
Calcium pyrophosphate: 25.0
Silicic anhydride: 5.0
Concentrated glycerin: 30.0
Sodium carboxymethyl cellulose: 1.0
Sodium lauryl sulfate: 0.5
Saccharin sodium: 0.05
Fragrance: 1.0
Water: the rest

### (Examples 2 to 5)

A composition for oral cavity was produced in the same manner as in Example 1 except that the blending amount (content) of each humus soil extract and medicinal component was as shown in Table 1.

### (Example 6)

An oral composition was produced in the same manner as in Example 1 except that tocopherol acetate was further added as a medicinal component.

#### (Comparative example)

An oral composition was produced in the same manner as in Example 1 except that the humus soil extract was not blended.

Table 1 shows the blending amounts of the humus soil extract and the medicinal component of each Example and Comparative Example.

#### <Evaluation>

### [Usage feeling]

The oral cavity was cleaned using the dentifrice obtained in each Example and Comparative Example, and evaluated according to the following four-stage criteria.

- A: Refreshing and comfortable feeling, no bitterness or odor after use.
- o: Refreshing and comfortable, almost no bitterness or odor after use.
- $\Delta$ : Although the feeling of polishing was refreshing, bitterness and off-flavor were felt after use.
- X: Bitterness or nasty smell was felt during use, and it remained after use.

#### [Moisturizing effect]

The oral cavity was cleaned using the dentifrice obtained in each Example and Comparative Example, and evaluated according to the following four-stage criteria.

- A: The mouth was moist after use.
- o: The mouth was slightly moist after use.
- $\Delta$ : Slight dryness was felt in the oral cavity after use.
- X: The oral cavity was dry after use.

The above evaluation results are shown in Table 2.

As is clear from Table 2, the dentifrice (oral composition) obtained in each example was excellent in feeling of use and moisturizing effect.

On the other hand, the oral composition obtained in each comparative example did not provide sufficient results.

Further, the dentifrice of Example 6 to which tocopherol acetate was added as a bactericide had an excellent anti-cariogenic effect and periodontal disease-preventing effect.

#### Patent Citations (12)

| Publication number         | Priority date | Publication date | Assignee              | Title   |
|----------------------------|---------------|------------------|-----------------------|---|
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| JPS6475412A *              | 1987-09-16    | 1989-03-22       | Andeiin Kk            | Agent for eliminating foul breath                               |
| JPH0687752A *              | 1992-09-04    | 1994-03-29       | Kyowa Kagaku Kogyo Kk | Antimicrobial water and its production                          |
| JPH07133213A *             | 1993-11-10    | 1995-05-23       | Lion Corp             | Composition for oral cavity application                         |
| JPH08268855A *             | 1995-03-31    | 1996-10-15       | Sunstar Inc           | Composition for oral cavity                                     |
| JPH11199601A *             | 1998-01-05    | 1999-07-27       | Yuki Kaken Kk         | Dissolution of chitosan   |
| JP2000136140A *            | 1998-10-29    | 2000-05-16       | Ra Purata Koeki Kk    | Aqueous solution containing substance extracted from humic soil |
| JP2001278758A *            | 2000-03-31    | 2001-10-10       | Nippon Zettoc Co Ltd  | Composition for oral cavity                                     |
| JP2002234825A *            | 2001-02-08    | 2002-08-23       | Nippon Zettoc Co Ltd  | Composition for oral cavity application                         |
| JP2003267821A *            | 2002-03-13    | 2003-09-25       | Koike Kagaku Kk       | Raw material for cosmetic                                       |
| JP2004115382A *            | 2002-09-24    | 2004-04-15       | Lion Corp             | Liquid composition for oral cavity                              |
| JP2005104911A *            | 2003-09-30    | 2005-04-21       | Sunstar Inc           | Oral composition  |
| Family To Family Citations |               |                  |                       |   |

<sup>\*</sup> Cited by examiner, † Cited by third party

## Cited By (2)

| Publication number         | Priority date | Publication date | Assignee                     | Title  |
|----------------------------|---------------|------------------|------------------------------|--|
| JP2014162723A *            | 2013-02-21    | 2014-09-08       | Takayoshi Toyoda             | Fulvic acid aqueous solution derived from humic substances and production method thereof |
| JP2020059689A *            | 2018-10-09    | 2020-04-16       | 炭プラスラボ <mark>株式会</mark><br>社 | Oral composition   |
| Family To Family Citations |               |                  |                              |  |

<sup>\*</sup> Cited by examiner, † Cited by third party, ‡ Family to family citation

Similar Documents

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|----------------|------------|---|
| JP4892957B2    | 2012-03-07 | Liquid oral composition   |
| KR101448283B1  | 2014-10-13 | A Composition of a Bubble Dentifrice and the Method of Making it  |
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| W02004041229A1 | 2004-05-21 | Base for oral composition and oral composition  |
| KR101862229B1  | 2018-05-30 | Skin protective cosmetic composition for stabilizing vitamin c containing bergenin and fullerene  |
| JP5893324B2    | 2016-03-23 | Methyl mercaptan inhibitor  |
| KR20080043779A | 2008-05-19 | Oral care composition   |
| JP2020040944A  | 2020-03-19 | Composition for oral cavity containing nipa extract as active ingredient  |
| JP5397204B2    | 2014-01-22 | Oral composition  |
|                |            |   |
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| JP4712323B2    | 2011-06-29 | Oral composition  |
| JP2006327978A  | 2006-12-07 | Hair grower   |
| JP2006124315A  | 2006-05-18 | Oral composition  |
| JP4323979B2    | 2009-09-02 | Oral composition  |
| JP2006335687A  | 2006-12-14 | Oral composition  |
| JP3715895B2    | 2005-11-16 | Method for producing plant extract powder and composition for oral cavity containing plant extract powder produced by this method                 |
| EP2808009A1    | 2014-12-03 | Toothpaste comprising propolis extract  |
| KR100765907B1  | 2007-10-10 | Antimicrobial and deodorizing composition using inorganic ion of deep sea water   |
| JP4778726B2    | 2011-09-21 | Oral composition  |
| JP3862013B2    | 2006-12-27 | Oral composition  |
| WO2014191009A1 | 2014-12-04 | Toothpaste comprising propolis extract  |
| JP2005082568A  | 2005-03-31 | Glucosyltransferase inhibitor, plaque formation inhibitor, antibacterial agent, agent for oral cavity, and beverage or food for preventing caries |
|                |            |   |

## **Priority And Related Applications**

# Priority Applications (1)

Publication

Publication Date Title

| Application   | Priority date | Filing date | Title            |
|---------------|---------------|-------------|------------------|
| JP2005162876A | 2005-06-02    | 2005-06-02  | Oral composition |

# Applications Claiming Priority (1)

| Application   | Filing date | Title            |
|---------------|-------------|------------------|
| JP2005162876A | 2005-06-02  | Oral composition |

## Legal Events

| Date       | Code | Title                                       | Description   |
|------------|------|---|---|
| 2008-05-31 | A621 | Written request for application examination | Free format text: JAPANESE INTERMEDIATE CODE: A621  Effective date: 20080530    |
| 2010-09-14 | A711 | Notification of change in applicant         | Free format text: JAPANESE INTERMEDIATE CODE: A711  Effective date: 20100913    |
| 2010-09-28 | A977 | Report on retrieval                         | Free format text: JAPANESE INTERMEDIATE CODE: A971007  Effective date: 20100928 |

| 2010-10-02 | A521 | Written amendment                   | Free format text: JAPANESE INTERMEDIATE CODE: A821  Effective date: 20100913 |
|------------|------|-------------------------------------|--|
| 2010-11-09 | A521 | Written amendment                   | Free format text: JAPANESE INTERMEDIATE CODE: A523  Effective date: 20101020 |
| 2010-11-25 | A131 | Notification of reasons for refusal | Free format text: JAPANESE INTERMEDIATE CODE: A131  Effective date: 20101124 |
| 2011-01-25 | A521 | Written amendment                   | Free format text: JAPANESE INTERMEDIATE CODE: A523  Effective date: 20110124 |
| 2011-11-02 | A02  | Decision of refusal                 | Free format text: JAPANESE INTERMEDIATE CODE: A02  Effective date: 20111101  |

## Concepts

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| Name   | Image | Sections                          | Count | Query match |
|--|-------|-----------------------------------|-------|-------------|
| <b>■</b> mixture                               |       | title,claims,abstract,description | 65    | 0.000       |
| ■ soil   |       | claims,abstract,description       | 58    | 0.000       |
| ■ extract                                      |       | claims,abstract,description       | 44    | 0.000       |
| ■ water  |       | claims,abstract,description       | 16    | 0.000       |
| ■ filtration                                   |       | claims,abstract,description       | 10    | 0.000       |
| ■ filtrate                                     |       | claims,abstract,description       | 6     | 0.000       |
| <b>▶</b> humus                                 |       | claims,description                | 60    | 0.000       |
| <b>■</b> Mouth                                 |       | claims,description                | 36    | 0.000       |
| ■ preservative                                 |       | claims,description                | 8     | 0.000       |
| ■ preservative agent                           |       | claims,description                | 8     | 0.000       |
| ■ Cetylpyridinium Chloride                     |       | claims,description                | 5     | 0.000       |
| ■ Cetylpyridinium chloride                     |       | claims,description                | 5     | 0.000       |
| ● effects                                      |       | abstract,description              | 12    | 0.000       |
| extraction                                     |       | abstract,description              | 6     | 0.000       |
| chloride anion                                 |       | abstract,description              | 2     | 0.000       |
| ■ antimicrobial                                |       | abstract                          | 1     | 0.000       |
| ■ cetylpyridinium                              |       | abstract                          | 1     | 0.000       |
| Show all concepts from the description section |       |                                   |       |             |

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