

Fulvic acid oral liquid capable of resisting altitude stress and preparation method thereof

Abstract

The invention discloses fulvic acid oral liquid capable of resisting altitude stress and a preparation method thereof, and belongs to the technical field of biological medicine .The fulvic acid oral liquid resisting the altitude stress is prepared from, by weight, 5-10 parts of medicinal-grade sodium fulvate, 10-15 parts of radix notoginseng, 10-15 parts of radix salvia miltiorrhiza, 20-25 parts of silkworm excrement, 10-15 parts of fructus crataegi, 10-15 parts of lemons and 10-15 parts of rock candies, wherein radix notoginseng, radix salvia miltiorrhiza and fructus crataegi are added according to the weight ratio of 1:1:1 .The oral liquid is rich in raw material source, simple in preparation technology, convenient to carry and use and capable of effectively relieving the symptoms such as dizziness, giddiness, tiredness, strength lacking, nausea, emesis, insomnia, mouth dryness, dysarteriotony and appetite decreasing which are caused by the altitude stress.

Classifications

■ **A61K35/02** Medicinal preparations containing materials or reaction products thereof with undetermined constitution from inanimate materials

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CN105832860A

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Info: [Patent citations \(12\)](#), [Non-patent citations \(1\)](#), [Legal events](#), [Similar documents](#), [Priority and Related Applications](#)

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Claims (4)

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1. a fulvic acid oral liquid for altitude sickness prevention, its principal character, is prepared by following raw material: pharmaceutical grade fulvic acid Sodium 5-10 weight portion; Radix Notoginseng 10-15 weight portion; Radix Salviae Miltiorrhizae 10-15 weight portion; Bombyx mori L. 20-25 weight portion; Fructus Crataegi 10-15 weight portion; Fructus Citri Limoniae 10-15 weight portion; Crystal sugar 10-15 weight portion; Wherein, Radix Notoginseng, Radix Salviae Miltiorrhizae, Fructus Crataegi 1:1:1 by weight adds.

2. the preparation method of the fulvic acid oral liquid of altitude sickness prevention described in claim 1, it is characterised in that specifically include following Step:

(1) take Radix Notoginseng, Radix Salviae Miltiorrhizae, pulverize, mix, add Radix Notoginseng, Radix Salviae Miltiorrhizae total amount 2-3 times amount 70% soak with ethanol overnight, reflux, extract, 3.5 ~ 4.5h, obtains medicinal liquid after filtration; Filtering residue adds 2-3 times amount 70% ethanol of total amount, reflux, extract, 2.5 ~ 3.5h, filters Medicinal liquid, merges twice gained medicinal liquid, concentration of liquid medicine is obtained extractum, volatilize ethanol, standby;

(2) take Fructus Crataegi, Fructus Citri Limoniae, add Fructus Crataegi, Fructus Citri Limoniae total amount 2-3 times amount pure water, boil 3.5 ~ 4.5h in micro-boiling, filter to get filtrate, Filtering residue adds the 2-3 micro-boiling of times amount pure water of both total amounts again and boils 1.5 ~ 2.5h, filters to get filtrate, merges twice filtrate;

(3) taking Bombyx mori L. 20-25 weight portion, add 2-3 times amount pure water, gauze is decocted a drug wrapped 3.5 ~ 4.5h, by concentration of liquid medicine to original volume 1/ 10, standby;

(4) by sodium fulvate, Radix Notoginseng and Radix Salviae Miltiorrhizae extractum, Bombyx mori L. extract, Fructus Crataegi, Fructus Citri Limoniae filtrate and crystal sugar be sufficiently mixed, 60-70 DEG C it is concentrated into the 1/3 of original volume, filter press, rolls lid in aseptic condition fill and obtain fulvic acid oral liquid.

The preparation method of the fulvic acid oral liquid of altitude sickness prevention the most according to claim 2, it is characterised in that: described yellow humic The preparation method of acid sodium is: fulvic acid crude product adds centrifugation after normal-temperature dissolution in the deionized water of its quality 3-5 times, takes Supernatant is inserted and is carried out dialysis in dialysis apparatus and obtain dialysis solution A, is 9-10 with the pH value of alkaline matter regulation dialysis solution A, Stirring reaction 20-30 minute under the conditions of 85-95 DEG C, after be then concentrated into that volume is former dialysis solution A volume 1/3rd again Centrifugation, takes supernatant and again dialyses, and after finally being concentrated by gained dialysis solution, obtains Xanthohumate after drying.

The preparation method of the fulvic acid oral liquid of altitude sickness prevention the most according to claim 3, it is characterised in that: described dialysis The molecular cut off of device is 500-1000 dalton, wherein alkaline matter be mass percent concentration be the food grade of 10-15% Sodium hydroxide.

Description

A kind of fulvic acid oral liquid of altitude sickness prevention and preparation method thereof

Technical field

Fulvic acid oral liquid that the present invention relates to a kind of altitude sickness prevention and preparation method thereof, belongs to biological medicine technology neck Territory.

Background technology

Altitude sickness is after people arrives certain height above sea level, health be adapt to cause because of height above sea level draught head, contain The change that oxygen amount is few, air is dried etc., and the natural physiological reaction produced, when height above sea level commonly reaches about 2700 meters, just Have altitude sickness. Acute high altitude reaction, high altitude heart disease, high altitude hypotension, plateau type pulmonary edema, plateau dusk can be subdivided into Fan, chronic mountain reaction, high altitude erythrocytosis. For above-mentioned symptom, occur in that Gao Yuan Kang capsules, red scape in the market The medicine of the altitude sickness preventions such as it capsule, Radix Panacis Quinquifolii ball, but there are two kinds of defects, and first in the stage used in advance, can produce The side effect of raw sustained activity; Second can not rapid recovery Nausea and vomiting, dizziness, the symptom such as dizzy. Therefore one is sought Easy to use, drug effect quickly, the medicine that has no side effect be very important.

Modern medicine thinks that altitude sickness is a kind of emergency reaction and compensation being under altitude environment due to body, Total body water sodium retention, the high altitude comprehensive syndrome that intercellular edema is caused, mainly show themselves in that Heart beating accelerated breathing, blood Pressure raises; Leukocyte raises, and digestion secretion simultaneously reduces, and gastrointestinal peristalsis is limited. Therefore, to prevent and treat cardiovascular drugs control blood Pressure, compatibility gastrointestinal regulation agent, perhaps can effectively alleviate altitude sickness.

Summary of the invention

Purpose is to provide the fulvic acid oral liquid of a kind of altitude sickness prevention, it is possible to effective alleviation altitude sickness causes The symptoms such as Nausea and vomiting, inappetence, xerostomia, and improve oral liquid mouthfeel, easy to use, drug effect absorbs fast, it is simple to take Band. The fulvic acid oral liquid of described altitude sickness prevention, is prepared by following raw material: pharmaceutical grade sodium fulvate 5-10 weight portion; Radix Notoginseng 10-15 weight portion; Radix Salviae Miltiorrhizae 10-15 weight portion; Bombyx mori L. 20-25 weight portion; Fructus Crataegi 10-15 weight portion; Fructus Citri Limoniae 10-15 weight Part; Crystal sugar 10-15 weight portion; Wherein, Radix Notoginseng, Radix Salviae Miltiorrhizae, Fructus Crataegi parts by weight 1:1:1 by weight adds.

Another object of the present invention is to provide the preparation method of the fulvic acid oral liquid of described altitude sickness prevention, specifically wrap Include following steps:

(1) take Radix Notoginseng, Radix Salviae Miltiorrhizae, pulverize, mix, add Radix Notoginseng, Radix Salviae Miltiorrhizae total amount 2-3 times amount 70% soak with ethanol overnight, reflux, extract, 3.5 ~ 4.5h, obtains medicinal liquid after filtration; Filtering residue adds 2-3 times amount 70% ethanol of total amount, reflux, extract, 2.5 ~ 3.5h, filters Medicinal liquid, merges twice gained medicinal liquid, concentration of liquid medicine is obtained extractum, volatilize ethanol, standby;

(2) take Fructus Crataegi, Fructus Citri Limoniae, add Fructus Crataegi, Fructus Citri Limoniae total amount 2-3 times amount pure water, boil 3.5 ~ 4.5h in micro-boiling, filter to get filtrate, Filtering residue adds the 2-3 micro-boiling of times amount pure water of both total amounts again and boils 1.5 ~ 2.5h, filters to get filtrate, merges twice filtrate;

(3) taking Bombyx mori L. 20-25 weight portion, add 2-3 times amount pure water, gauze is decocted a drug wrapped 3.5 ~ 4.5h, by concentration of liquid medicine to original volume 1/10, standby;

(4) by sodium fulvate, Radix Notoginseng and Radix Salviae Miltiorrhizae extractum, Bombyx mori L. extract, Fructus Crataegi, Fructus Citri Limoniae filtrate and crystal sugar be sufficiently mixed, 60-70 DEG C it is concentrated into the 1/3 of original volume, filter press, rolls lid in aseptic condition fill and obtain fulvic acid oral liquid.

Sodium fulvate, can wriggle by stimulating gastrointestinal, improves digestion secretion, protection gastric mucosa etc.. Its long chain macromolecule structure, rich Containing characteristics such as carboxyl, carbonyl, phenolic hydroxyl group, quinonyls, allow its have hydrophilic, adsorptivity, ion exchange, cushioning effect and Complexing; And there is multiple hormone, enzyme and various trace element, thus there is on biological activity multiformity, can be effective The Systemic reaction that ground regulation and prevention altitude sickness cause.

The preparation method of described sodium fulvate is: fulvic acid crude product adds room temperature in the deionized water of its quality 3-5 times Centrifugation after dissolving, takes supernatant and inserts and carry out dialysis in dialysis apparatus and obtain dialysis solution A, regulate dialysis solution with alkaline matter The pH value of A is 9-10, and stirring reaction 20-30 minute under the conditions of 85-95 DEG C, being then concentrated into volume is former dialysis solution A volume 1/3rd after recentrifuge separate, take supernatant and again dialyse, after finally gained dialysis solution being concentrated, dried To Xanthohumate.

The molecular cut off of described dialysis apparatus is 500-1000 dalton, and wherein alkaline matter is mass percent concentration Sodium hydroxide for the food grade of 10-15%.

Fulvic acid of the present invention is pharmaceutical grade fulvic acid or reference patent application 200810233669.X " brown coal oxidation Degraded produces humic acids and the method for salt thereof " in method prepare fulvic acid (with free of contamination hydrogen peroxide as oxidant, and Through purification, prepare fulvic acid), commercial refined fulvic acid is not after heavy metal analysis exceeds standard, it is possible to use.

Beneficial effects of the present invention:

(1) Radix Notoginseng, Radix Salviae Miltiorrhizae, Fructus Crataegi compatibility, effectively alleviate headache that altitude sickness causes, nervous, tachypnea, dizziness, dizzy and The symptoms such as increased heart rate, dysarteriotony, edema of the limbs, and can prophylactic treatment cardiovascular disease, coronary heart disease, hypertension, in advance Anti-high altitude heart disease, high altitude hypotension, altitude coma. And untoward reaction does not occurs, such as sustained activity.

(2) Fructus Crataegi uses with Fructus Citri Limoniae compatibility, it is possible to effectively improve the mouthfeel of fulvic acid oral liquid, supplements heat energy and water Point, more can promoting the production of body fluid to quench thirst, correct alkalosis, contribute to suppressing Nausea and vomiting, sour-sweet mouthfeel alleviates the mouth that causes of altitude sickness The symptoms such as dry, inappetence; Relative to existing market medication, it is possible to the most directly and quickly alleviate Nausea and vomiting, enough do Symptom.

(3) sodium fulvate uses with Fructus Crataegi compatibility, can increase again appetite, promote to absorb, protect while protection gastric mucosa The sleep that card is sufficient, improves the ability of resisting fatigue, it is to avoid asthenia, weak sense occur; And it is gentle to increase Premeabilisation of cells ability Rush ability, maintain body fluid acid-base balance.

(4) sodium fulvate and Bombyx mori L. compatibility, expelling wind and removing dampness, stomach function regulating turbidity removal; Treatment limbs are unsuccessful, rubella pruritus, vomit and diarrhoea and turn Muscle.

(5) compatibility such as sodium fulvate, Radix Notoginseng, Radix Salviae Miltiorrhizae, Bombyx mori L., Fructus Crataegi, Fructus Citri Limoniae uses, and has multidirectional regulatory function, mutually auxiliary Coordinate, bring out the best in each other, improve blood flow, expand cardiovascular and cerebrovascular vessel, improve erythrocyte oxygen carrying capability, improve the anoxia shape of each organ Condition, effectively increases anti-anoxia ability, prevents and treats acute and chronic altitude sickness; Life-time service, safety, have no side effect.

Detailed description of the invention

Below by embodiment, the present invention is described in further detail, but scope is not limited to described interior Hold.

Embodiment 1

The fulvic acid oral liquid of altitude sickness prevention described in the present embodiment, is prepared by following raw material: pharmaceutical grade sodium fulvate 50g; Radix Notoginseng 100g; Radix Salviae Miltiorrhizae 100g; Bombyx mori L. 250g; Fructus Crataegi 100g; Fructus Citri Limoniae 100g; Crystal sugar 150g; Wherein, Radix Notoginseng, Radix Salviae Miltiorrhizae, Fructus Crataegi 1:1:1 by weight adds.

The preparation method of the fulvic acid oral liquid of altitude sickness prevention described in the present embodiment, specifically includes following steps:

(1) take 100g Radix Notoginseng, 100g Radix Salviae Miltiorrhizae is pulverized, and adds 600g ethanol (mass percent is 70%) soaked overnight, and backflow carries Take 4h, filter to obtain medicinal liquid, filtering residue adds 400g ethanol (mass percent is 70%), reflux, extract, 2h, filters to obtain medicinal liquid, Merge twice gained medicinal liquid, concentration of liquid medicine is obtained extractum, volatilize ethanol, standby.

(2) taking 100g Fructus Crataegi and 100g Fructus Citri Limoniae, add 600g pure water, boil 3h in micro-boiling, filter to get filtrate, filtering residue adds 400g again 2h is boiled in the micro-boiling of pure water, filters to get filtrate, and merges twice filtrate.

(3) taking Bombyx mori L. 250g, add 500g pure water, gauze is decocted a drug wrapped 4h, by concentration of liquid medicine to original volume 1/10, standby.

(4) by sodium fulvate 50g, Radix Notoginseng and Radix Salviae Miltiorrhizae extractum, Bombyx mori L. extract, Fructus Crataegi, Fructus Citri Limoniae filtrate and crystal sugar 150g fill Divide mixing, 60 DEG C of be concentrated into original volume 1/3, filter press, roll lid, cryopreservation then at aseptic condition fill.

The preparation method of described sodium fulvate is: fulvic acid crude product adds room temperature in the deionized water of its quality 4 times molten Centrifugation after solution, takes supernatant and inserts and carry out dialysis in dialysis apparatus and obtain dialysis solution A, regulate dialysis solution A with alkaline matter PH value be 10, stirring reaction 25 minutes, be then concentrated into that volume is former dialysis solution A volume 1/3rd under the conditions of 90 DEG C Rear recentrifuge separates, and takes supernatant and again dialyses, and after finally being concentrated by gained dialysis solution, obtains fulvic acid after drying Salt; The molecular cut off of described dialysis apparatus is 1000 dalton, wherein alkaline matter be mass percent concentration be the food of 15% With the sodium hydroxide of level.

Operation instruction, 10ml mono-, every day one.

Embodiment 2

The fulvic acid oral liquid of altitude sickness prevention described in the present embodiment, is prepared by following raw material: pharmaceutical grade sodium fulvate 100g; Radix Notoginseng 125g; Radix Salviae Miltiorrhizae 125g; Bombyx mori L. 200g; Fructus Crataegi 125g; Fructus Citri Limoniae 150g; Crystal sugar 130g; Wherein, Radix Notoginseng, Radix Salviae Miltiorrhizae, mountain Short, bristly hair or beard 1:1:1 by weight adds.

The preparation method of the fulvic acid oral liquid of altitude sickness prevention described in the present embodiment, specifically includes following steps:

(1) take 125g Radix Notoginseng, 125g Radix Salviae Miltiorrhizae is pulverized, and adds 750g ethanol (mass percent is 70%) soaked overnight, and backflow carries Take 3.5h, filter to obtain medicinal liquid, filtering residue adds 500g ethanol (mass percent is 70%), reflux, extract, 2.5h, filters Medicinal liquid, merges twice gained medicinal liquid, concentration of liquid medicine is obtained extractum, volatilize ethanol, standby.

(2) taking 125g Fructus Crataegi and 150g Fructus Citri Limoniae, add 825g pure water, boil 3.5h in micro-boiling, filter to get filtrate, filtering residue adds again 2.5h is boiled in the micro-boiling of 550g pure water, filters to get filtrate, and merges twice filtrate.

(3) taking Bombyx mori L. 200g, add 400g pure water, gauze is decocted a drug wrapped 4h, by concentration of liquid medicine to original volume 1/10, standby.

(4) by sodium fulvate 100g, Radix Notoginseng and Radix Salviae Miltiorrhizae extractum, Bombyx mori L. extract, Fructus Crataegi, Fructus Citri Limoniae filtrate and crystal sugar 130g fill Divide mixing, 70 DEG C of be concentrated into original volume 1/3, filter press, roll lid, cryopreservation then at aseptic condition fill.

The preparation method of described sodium fulvate is: fulvic acid crude product adds room temperature in the deionized water of its quality 5 times molten Centrifugation after solution, takes supernatant and inserts and carry out dialysis in dialysis apparatus and obtain dialysis solution A, regulate dialysis solution A with alkaline matter PH value be 10, stirring reaction 30 minutes, be then concentrated into that volume is former dialysis solution A volume 1/3rd under the conditions of 95 DEG C Rear recentrifuge separates, and takes supernatant and again dialyses, and after finally being concentrated by gained dialysis solution, obtains fulvic acid after drying Salt; The molecular cut off of described dialysis apparatus is 800 dalton, wherein alkaline matter be mass percent concentration be the food of 13% With the sodium hydroxide of level.

Operation instruction, 10ml mono-, every day one.

Embodiment 3

The fulvic acid oral liquid of altitude sickness prevention described in the present embodiment, is prepared by following raw material: pharmaceutical grade sodium fulvate 80g; Radix Notoginseng 150g; Radix Salviae Miltiorrhizae 150g; Bombyx mori L. 220g; Fructus Crataegi 150g; Fructus Citri Limoniae 150g; Crystal sugar 100g; Wherein, Radix Notoginseng, Radix Salviae Miltiorrhizae, Fructus Crataegi 1:1:1 by weight adds.

The preparation method of the fulvic acid oral liquid of altitude sickness prevention described in the present embodiment, specifically includes following steps:

(1) take 150g Radix Notoginseng, 150g Radix Salviae Miltiorrhizae is pulverized, and adds 900g ethanol (mass percent is 70%) soaked overnight, and backflow carries Take 4.5h, filter to obtain medicinal liquid, filtering residue adds 600g ethanol (mass percent is 70%), reflux, extract, 1.5h, filters Medicinal liquid, merges twice gained medicinal liquid, concentration of liquid medicine is obtained extractum, volatilize ethanol, standby.

(2) taking 150g Fructus Crataegi and 150g Fructus Citri Limoniae, add 900g pure water, boil 2.5h in micro-boiling, filter to get filtrate, filtering residue adds again 2.5h is boiled in the micro-boiling of 600g pure water, filters to get filtrate, and merges twice filtrate.

(3) taking Bombyx mori L. 250g, add 500g pure water, gauze is decocted a drug wrapped 3.5h, by concentration of liquid medicine to original volume 1/10, standby.

(4) by sodium fulvate 80g, Radix Notoginseng and Radix Salviae Miltiorrhizae extractum, Bombyx mori L. extract, Fructus Crataegi, Fructus Citri Limoniae filtrate and crystal sugar 100g fill Divide mixing, 65 DEG C of be concentrated into original volume 1/3, filter press, roll lid, cryopreservation then at aseptic condition fill.

The preparation method of described sodium fulvate is: fulvic acid crude product adds room temperature in the deionized water of its quality 3 times molten Centrifugation after solution, takes supernatant and inserts and carry out dialysis in dialysis apparatus and obtain dialysis solution A, regulate dialysis solution A with alkaline matter PH value be 9, stirring reaction 20 minutes, be then concentrated into that volume is former dialysis solution A volume 1/3rd under the conditions of 85 DEG C Rear recentrifuge separates, and takes supernatant and again dialyses, and after finally being concentrated by gained dialysis solution, obtains fulvic acid after drying Salt; The molecular cut off of described dialysis apparatus is 500 dalton, wherein alkaline matter be mass percent concentration be the food of 10% With the sodium hydroxide of level.

Operation instruction, 10ml mono-, every day one.

The test of pesticide effectiveness of the embodiment of the present invention:

Hypoxia endurance test

Test material: 50 KM male and healthy mice, body weight 0.020 ± 0.002kg, 50 250ml wide mouthed bottles, sodica calx, all Intellectual circle.

Packet: divide five groups, often group 10, model group, embodiment 1 group, embodiment 2 groups, embodiment 3 groups, matched group.

Test procedure: 1. after even group-division, 10ml normal saline of model group gavage every day, embodiment 1,2,3 component Not according to above-described embodiment, gavage 10ml, matched group feeding every day is common medicine Rhodiola rosea capsules.Continuous 7 days medicine feeds, last Modeling after medicine feed 2h.

Fill 5g sodica calx in every 250ml wide mouthed bottle, put a mice, bottleneck uniform application vaseline, lid lid, seal, Timing in time is until mice stops substantially breathing, and clock t.

By average time ± standard deviation (M ± S), result of the test: record time t, finally calculates whether difference has statistics to anticipate Justice (P < 0.05, or P < 0.01).

The impact on normal mouse hypobaric hypoxia of the table 1 fulvic acid of the present invention oral liquid

(M ± S, n=10)

Note: compare with model group, *P < 0.05, **P<0.01

Alleviate vomiting test

Test material: 30 pigeons, body weight is 0.47 ± 0.02kg, cisplatin.

Test procedure: be the most uniformly divided into six groups, often group 5, model group, embodiment 1,2,3 groups, matched group, treatment group.

2. model group and treatment group, every day gavage 10ml normal saline, continuous 7 days, last was administered modeling after 2h; Embodiment 1, press above-described embodiment 1,2,3 gained medicine gavage 10ml every day respectively for 2,3 groups, continuous 7 days, last be administered after 2h modeling; Right Commonly using the anti-medicine of anti-height, 10ml according to group feeding market, continuous 7 days, last was administered modeling after 2h.3. modeling, by lumbar injection 4.5mg/kg cisplatin, to treating gavage above-described embodiment 3 gained oral liquid 10ml after observing vomiting phenomenon, and half an hour subsequently, Observe phenomenon again.

Result of the test:

The impact that normal pigeon is vomitted by table two fulvic acid of the present invention oral liquid

Note: acutely, ** vomiting is relatively violent, and * slightly feels sick in *** vomiting

As shown in Table 1, fulvic acid oral liquid of the present invention can significantly extend mice survival under the conditions of limited oxygen Time, effectiveness comparison is obvious, and part Experiment group is even more effective than market medication.And embodiment 3 is optimum implementation.By table Two understand, and the vomiting of pigeon can significantly be contained by fulvic acid oral liquid of the present invention.Therefore, fulvic acid of the present invention is administered orally Liquid can effectively improve body anti-anoxia ability and alleviate vomiting phenomenon.And give rat or pigeon continuous feeding present invention phase Between, the untoward reaction such as sustained activity do not occur, and uses market medication group, several the symptoms that sustained activity occurs.

Clinical trial:

The present invention is used for 123 examples, the patient of Nausea and vomiting, 78 example male, 45 example women occur on plateau.Its age is at 16- 50 years old.When Nausea and vomiting occurs, take the present invention, get better after 2h and turn.Wherein 98 example effects are notable, and 19 example effects are not notable, 6 do not have effect.Therefore, the present invention is 89% for alleviating the effective percentage of the Nausea and vomiting that altitude sickness causes.

Patent Citations (12)

Publication number	Priority date	Publication date	Assignee	Title
CN1507903A *	2002-12-18	2004-06-30	张振西	Health-care product for antilipemic and preventing cardio-cerebrovascular disease
CN1565474A *	2003-06-16	2005-01-19	陈伟	Biochemical nucleic acid fulvic acid oral liquid production method
CN1907357A *	2006-08-11	2007-02-07	傅建熙	Compound recipe pollen extract oral liquid for regulating blood pressure and blood fat, and process for preparing same
CN101265445A *	2008-04-30	2008-09-17	齐永增	Preparation wine containing fulvic acid and preparation method thereof
CN101605740A *	2006-11-15	2009-12-16	种子生物科学私人有限公司	Have or do not have the brown coal of structural modification of extract of the organic molecule of increased functionality
CN101632454A *	2009-06-16	2010-01-27	阳瑞鸿	Nya miex tiang film agent
CN101744844A *	2009-12-14	2010-06-23	昆明理工大学	Fulvic acid or sodium fulvate substance with hypoglycemic function
CN102000147A *	2009-08-28	2011-04-06	江春艳	Medicament formula and preparation thereof for preventing and curing altitude reaction and coronary heart disease
CN102379420A *	2011-08-16	2012-03-21	刘子源	Preparation capable of improving sub-health state
CN103828996A *	2014-03-17	2014-06-04	昆明理工大学	Health-care chocolate product containing fulvic acid and preparation method thereof
CN104383324A *	2014-11-06	2015-03-04	昆明理工大学	Compound fulvate drug for silkworms
CN105412817A *	2015-12-04	2016-03-23	四川艾丽碧丝制药有	Rhodiola rosea compound oral liquid and preparation method thereof

限公司
Family To Family Citations

* Cited by examiner, † Cited by third party

Non-Patent Citations (1) ▲

Title
张惠芬: "药用黄腐酸的纯化工艺研究", 《食品工业科技》 *

* Cited by examiner, † Cited by third party

Similar Documents ▲

Publication	Publication Date	Title
CN103784611B	2017-08-25	It is a kind of that there is improvement sleep to help to alleviate composition and its application of pressure
CN106962909A	2017-07-21	A kind of matrimony vine royal jelly complex capsule and preparation method thereof
CN100579548C	2010-01-13	Chinese medicine composition for warming and recuperating the kidney-yang, and preparing method thereof
CN103977206A	2014-08-13	Traditional Chinese medicine preparation capable of improving gastrointestinal digestive function and production method thereof
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CN101780227A	2010-07-21	Traditional Chinese medicine composition for treating acute stroke and preparation method thereof
CN101711840B	2011-09-14	Medicine-food dual-purpose composition suitable for cancerous patients and preparation method thereof
CN104274705A	2015-01-14	Sobering and liver protecting chewable tablet and preparation method thereof
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CN105832860A	2016-08-10	Fulvic acid oral liquid capable of resisting altitude stress and preparation method thereof
CN101744945B	2011-11-30	Oral liquid for adjusting gastrointestinal function
CN104435648A	2015-03-25	Edible and medicinal dual-purpose composition as well as application and preparation method thereof
CN103948742B	2017-04-26	Pharmaceutical composition for improving male animal sexual dysfunction
CN107929413A	2018-04-20	A kind of antifatigue Chinese medicine composition and its application and preparation method
CN104491338B	2018-01-16	A kind of medicine-food dual-purpose composition to relax bowel and preparation method thereof
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CN102836372A	2012-12-26	Composition for improving cerebral circulation and protecting brain cells
CN106540084A	2017-03-29	A kind of blood-supplementing preparation, its preparation method and application
CN105833060A	2016-08-10	Compound lepidium meyenii product, and preparation method and application thereof
CN109331107B	2021-08-10	Traditional Chinese medicine composition and oral liquid for preventing and treating pet viral myocarditis and preparation method thereof
CN105596726A	2016-05-25	Composition for preventing and treating sub-health caused by staying up late and preparation method of composition
CN106072513A	2016-11-09	A kind of have the food of nourishing blood function, health product or pharmaceutical composition and preparation method thereof

Priority And Related Applications

Priority Applications (1) ▲

Application	Priority date	Filing date	Title
CN201610287647.6A	2016-05-04	2016-05-04	Fulvic acid oral liquid capable of resisting altitude stress and preparation method thereof

Applications Claiming Priority (1) ▲

Application	Filing date	Title
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CN201610287647.6A	2016-05-04	Fulvic acid oral liquid capable of resisting altitude stress and preparation method thereof
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Legal Events

Date	Code	Title	Description
2016-08-10	C06	Publication	
2016-08-10	PB01	Publication	
2016-09-07	C10	Entry into substantive examination	
2016-09-07	SE01	Entry into force of request for substantive examination	
2020-09-04	RJ01	Rejection of invention patent application after publication	Application publication date: 20160810
2020-09-04	RJ01	Rejection of invention patent application after publication	

Concepts

machine-extracted

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Name	Image	Sections	Count	Query match
■ liquid		title,claims,abstract,description	54	0.000
■ 3,7,8-trihydroxy-3-methyl-10-oxo-1,4-dihydropyrano[4,3-b]chromene-9-carboxylic acid		title,claims,abstract,description	40	0.000
■ fulvic acid		title,claims,abstract,description	40	0.000
■ fulvic acid		title,claims,abstract,description	40	0.000
■ preparation method		title,claims,abstract,description	17	0.000
■ drug		claims,abstract,description	28	0.000
■ Panax notoginseng		claims,abstract,description	26	0.000
■ Panax notoginseng		claims,abstract,description	26	0.000
■ sodium		claims,abstract,description	20	0.000
■ sodium		claims,abstract,description	20	0.000
■ sodium		claims,abstract,description	20	0.000
■ Bombyx mori		claims,abstract,description	18	0.000
■ raw material		claims,abstract,description	6	0.000
■ ethanol		claims,description	30	0.000
■ Altitude Sickness		claims,description	26	0.000
■ water		claims,description	21	0.000
■ dialysis solution		claims,description	20	0.000
■ filtrate		claims,description	20	0.000
■ prevention		claims,description	17	0.000
■ dialysis		claims,description	15	0.000
■ sodium hydroxide		claims,description	15	0.000
■ boiling		claims,description	13	0.000
■ filtration		claims,description	12	0.000
■ chemical reaction		claims,description	11	0.000
■ supernatant		claims,description	10	0.000
■ reflux		claims,description	7	0.000
■ centrifugation		claims,description	6	0.000
■ crude product		claims,description	5	0.000
■ deionised water		claims,description	5	0.000

▀ drugs	claims,description	5	0.000
▀ food	claims,description	5	0.000
▀ stirring	claims,description	5	0.000
▀ drying	claims,description	4	0.000
▀ biological regulation	claims,description	3	0.000
▀ mixture	claims,description	2	0.000
▀ acid	claims	1	0.000
▀ dissolution	claims	1	0.000
▀ Vomiting	abstract,description	14	0.000
▀ Dizziness	abstract,description	6	0.000
▀ engineering process	abstract,description	3	0.000
▀ Xerostomia	abstract,description	2	0.000
▀ appetite	abstract,description	2	0.000
▀ appetite	abstract,description	2	0.000
▀ Salvia miltiorrhiza	abstract	2	0.000
▀ Salvia miltiorrhiza	abstract	2	0.000
▀ Citrus limon	abstract	1	0.000
▀ Citrus limon	abstract	1	0.000
▀ Insomnia	abstract	1	0.000
▀ Nausea	abstract	1	0.000
▀ confectionery	abstract	1	0.000
▀ decreasing	abstract	1	0.000
▀ rock	abstract	1	0.000
Show all concepts from the description section			