21 results for 8 AND SILICON AND (FUNCTION+ OR HEALTH+ OR DISORDER+ OR ILLNESS OR SICKNESS) AND ALUMINUM - Collection: FAMPAT

#	Title	Publication number	1st App. date	Applicant/Assignee	Relevance score
1.	Far **infrared** heat-radiation **ceramic** slurry, fiber cloth, thin film and preparation methods thereof	CN103570360	2012-07-30	BOSIN TECHNOLOGY*	100 %

The invention discloses a far **infrared** heat-radiation **ceramic** slurry, the far **infrared** heat-radiation **ceramic** slurry is prepared by mixing a **ceramic** powder precursor with a corresponding solvent, a bonding agent, a dispersing agent or a structure modification agent, and the **ceramic** powder precursor is selected from a composition of salts or oxides of Na, Mg, Ca, B, Al, C, Si, Sn, Mn, Fe, Co, Ni and Cu. A **functional ceramic** body is obtained by coating the far **infrared** heat-radiation **ceramic** slurry on the surface of a substrate or adding the far **infrared** heat-radiation **ceramic** slurry into a polymer material, and then heating for drying. The **functional ceramic** body is a composition or a derivative with at least one or more than one structure of feldspar, olivine, cordierite, chlorite, green **magnesium** nickel ore, **tourmaline**, tremolite, actinolite, serpentine, spinel or calcite, has the far **infrared** radiation rate reaching 0.90-0.98, can rapidly transfer heat energy into radiation waves for spreading to the outside so as to achieve a rapid heat-radiation effect.

2.	Artificial acrylic marble having **function** to emit anion and far-**infrared** ray and preparation thereof	KR20040098193	2003-05-14	LG CHEM*	84 %

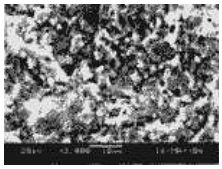
PURPOSE: Provided are a **functional** acryl-based artificial marble which emits anions and a far **infrared** ray and is improved in color, surface texture and mechanical properties and its preparation method. CONSTITUTION: The **functional** artificial acryl-based marble comprises a composition comprising 100 parts by weight of an acryl syrup; 100-200 parts by weight of an inorganic filler; 1-15 parts by weight of an anion **ceramic**; 0.5-10 parts by weight of a multifunctional acryl monomer as a crosslinking agent; 0.1-5 parts by weight of an organic peroxide as a polymerization initiator; and 0.1-5 parts by weight of a mercaptan-based compound as a radical carrier. The artificial marble is prepared by polymerizing the composition and curing the polymerized one. Preferably the anion **ceramic** is a white **ceramic** powder comprising an electrical component selected from **tourmaline** and rare earth metals; a **ceramic** component selected from **aluminum oxide**, **silicon oxide** and zirconium **oxide**; and an antibacterial metal selected from silver, zirconium, zinc and copper.

3.	Far-**infrared** negative-ion **ceramic** and preparation method thereof	CN105645938	2014-11-10	XIAMEN MEIJU INFORMATION TECHNOLOGY*	83 %

The invention discloses a far-**infrared** negative-ion **ceramic**. The **ceramic** comprises the following components by weight: 0.1 to 0.18 part of **magnesium oxide**, 0.2 to 0.29 part of calcium **oxide**, 1.80 to 2.78 parts of potassium **oxide**, 22 to 25 parts of aluminium **oxide**, 71 to 72.4 parts of **silicon** dioxide, 0.23 to 0.28 part of sodium **oxide**, 0.1 to 0.13 part of ferric **oxide**, 1 to 3 parts of **tourmaline** and 1 to 3 parts of germanium **oxide**. The invention also provides a manufacturing method for the far-**infrared** negative-ion **ceramic** by using the above-mentioned components; and the far-**infrared** negative-ion **ceramic** has the advantages of mildness, beautiful appearance, and comprehensive **functions** of emitting far **infrared** wave and releasing negative ions.

4.	**Functional ceramic** material and its prepn process	CN1887784	2006-07-14	UNIVERSITY HEBEI POLYTECHNIC*	82 %

The present invention is one kind of **functional ceramic health** material and its preparation process. The **health** material consists of **tourmaline** 5-30 wt%, ferrite 10-30 wt%, kaolin 10-20 wt%, slilica 5-20 wt%, alumina 5-20 wt%, calcium **oxide** 5-20 wt%, cellulose 2-5 wt%, polyacrylic acid 2-5 wt%, castor oil 2-5 wt% and RE 1-5 wt%. The preparation process includes grinding the materials to proper size, mixing while adding water, forming, drying and sintering in kiln.

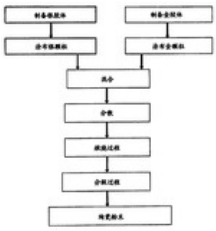


5.	Plastic caviar bead for filling of pillow having **function** of anti-bacteria	US2007116775	2005-11-17	HO-YOUNG LEE;I HO YEONG;LEE HO-YOUNG;Li, Ho Young	82 %

The present invention relates to the plastic caviar bead for filling of pillow having **function** of anti-bacteria that combines the raw materials of synthetic resins of 100 in weight, antimicrobial of 0.5~2 in weight, **ceramic** with hydrogen **silicon** and hydrogen **aluminum** of 3~15 in weight that are pressed and corrected to the shape of granulation with 1..5 mm in its diameter and having an excellent antibacterial **function**, it helps prevent all sorts of bacteria such as ticks to spread into the pillow while emitting atomic **infrared** rays that has a positive impact on human body and as well, its spherical shape increases the practicality of plastic caviar bead and enables a flow of air circulation by allowing the space between the beads and by emitting negative ion or atomic **infrared** rays, as well, the present invention of plastic caviar bead having a foam molding has an effect of light weight and superior comfort that the consumer want.

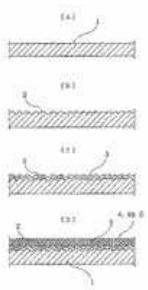
6.	Multifunction nano-biological cerimic composite and its preparation method	CN1792997	2004-12-24	BTM* BTM MEDICAL	81 %

The invention relates to an inorganic cerimic composite, especailly the inorganic cerimic composite which can be spreaded on or added in the materials used to made filters and household products such as toothpaste, clothes, shoes and so on in order to realize many **functions** such as emitting far **infrared** ray and anion, deodorization, shielding electromagnetic wave and so on. The multifunction nano-biological cerimic composite comprises **tourmaline** powders, 20~45wt% of which are coated with silver nanoparticles; illite powders, 45~20wt% of which are coated with gold nanoparticles; 5~20wt% of zeolite powders; and a melting point regulator, at least 30~15wt% of which is choosed from the composition of potassium nitrate, barilla and borax.



7.	Structure of coating layer for heat-cooker	KR20060093083	2006-07-18	RON COLLIER SHIN WOO TRADING SHINWOO TECH THEMOLON KOREA THERMOLON KOREA*	80 %

The present invention relates to a coating layer structure for heat-cookers, and more particularly, to a coating layer structure for heat-cookers wherein said structure has been produced by forming an **aluminum oxide** (Al₂O₃) layer on the surface of an **aluminum** heat-cooker by anodic oxidation and then applying thereon either an anion- and far **infrared** ray-emitting, inorganic **ceramic** coating agent or a non-stick, inorganic **ceramic** coating agent, said both coating agents being non-toxic to human body, and whereby said structure, on heating, does not release any carcinogens and increases heat conductivity at the same time, and said structure also has excellent anti-corrosive and anti-abrasive properties.



8. **Ceramic** material — WO2007072573 — 2005-12-22 — CO CO LTD* KOEI — 78 %

This invention provides a **ceramic** material that can solve a problem of conventional techniques such as accessories and films, to which a **ceramic** material regarded as exhibiting the effect of generating far-**infrared** rays has been applied, for preventing and improving **health** problems. Specifically, the conventional accessories and films have blood flow promotion and metabolism activation effects attained by far-**infrared** rays or the like, but on the other hand, the conventional techniques are unsatisfactory in far-**infrared** radiation effect and thus cannot exhibit satisfactory **health** problem preventive/improvement effects. The **ceramic** material of the present invention comprises **silicon**, **aluminum**, iron, calcium, **titanium**, and potassium as main components and sulfur, strontium, vanadium, and yttrium as secondary components. Products utilizing the **ceramic** material include clothes, accessories, filters for liquids, and cosmetics.

Fig.1

Analytical Line	Intensity (cps/μA)
SiKa	2.863
AlKa	0.881
FeKa	22.193
CaKa	1.004
TiKa	1.646
K Ka	0.175
S Ka	0.164
SrKa	3.192
V Ka	0.136
Y Ka	0.459

9. **Functional** sleeping bag with trace-element anion far-**infrared** nano-fiber fabric — CN101569481 — 2009-06-16 — GANG CHENG — 76 %

The invention relates to a **functional** sleeping bag with trace-element anion far-**infrared** nano-fiber fabric, which belongs to the technical field of development and application of **health** fabric. The anion content of the air is the key of air quality. Anions in the air are as important as vitamins in food and are called vitamins or longevity elements in the air, so most of centenarians live in mountains or rural areas, and even diseases of certain people with serious chronic diseases can disappear after living in the mountains or the rural areas for a certain period of time. The reason can be attributed that the mountains or the rural areas are numerous in anions in the air, rich and comprehensive in trace elements in soil, water and food. The **functional** sleeping bag with the trace-element anion far-**infrared** nano-fiber fabric is developed and produced according to the basic mechanism to strengthen the body and prolong the life.

10. **Ceramic** — JP2004107113 — 2002-09-17 — SOSENJI* — 75 %

PROBLEM TO BE SOLVED: To provide a **ceramic** as a product base material capable of emitting a large quantity of far **infrared** ray at a normal temperature, remarkably accelerating blood flow to eliminate stiffness or pain by being worked into a decorative and wearing, attaining medical effect such as the elimination of the cold, making a food and drink mellow and retarding the progress of rottening by being worked into a cup, a dish or the like and used for the food and drink, improving the **health** or making the taste of the food and drink more sweet and attaining the delay of the rottening by producing minus ion.
SOLUTION: The **ceramic** is obtained by blending 30-70% **silicon oxide**, 10-30% **aluminum oxide**, 3-10% calcium **oxide**, 0.1-0.5% chromium **oxide**, 0.05-0.2% manganese **oxide**, 3-9% iron **oxide**, 0.05-2% cobalt **oxide**, 0.4-2% potassium **oxide**, 1-6% sodium **oxide** and further 0.4-2% **magnesium oxide** and additionally 10-70% **tourmaline** and further 5-30% **titanium oxide**.
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11. Method of making the coated cloth that develops anion and far **infrared** ray and controls the proliferation of a house dust mite and is coated with composition of antistaticfunction — KR100900026 — 2008-11-04 — KIM SUNG WHAN — 75 %

PURPOSE: A manufacturing method of coating fabric having **function** for negative ion and far-**infrared** radiation, inhibition of generation of house dust mites and antistatic is provided to restrict generation of kinds of the microorganisms and the house dust mites etc by radiating the negative ion and far-**infrared** radiation from bedclothes etc.
CONSTITUTION: Coating fabric having **function** for negative ion and far-**infrared** radiation, inhibition of generation of house dust mites and antistatic is manufactured by coating a compound consisting of 2.00 weight% of **tourmaline**, 5.00 weight% of germanium, 5.00 weight% of antistatic agent, 5.94 weight% of **titanium** dioxide, 1.20 weight% of lanthanum **oxide**, 0.6 weight% of samarium **oxide**, 1.5 weight% of praseodymium **oxide**, 2.4 weight% of ceria, 12.00 weight% of zirconium **oxide**, 0.06 weight% of ferric **oxide**, 0.30 weight% of **aluminum oxide**, 3.00 weight% of **silicon oxide**, 55 weight% of PVC resin, and 6 weight% of kaolin on a surface of a base sheet. A net textile of which thickness is 0.2 ~ 0.5 cm is attached on a lower surface of the base sheet. On a surface in which the compound is coated is coated with silver of which particle size is 1 ~ 20nm.
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12. Synthesis method of **tourmaline** — CN101654254 — 2009-09-16 — SHANDONG UNIVERSITY* — 71 %

The invention discloses a synthesis method of **tourmaline**. The method comprises the following steps: preparing a homogeneous solution with sodium, **magnesium**, **aluminum**, **silicon**, boron and other elements at constant temperature, then adding precipitant sodium hydroxide to ensure the solution to reach a certain pH value, obtaining precipitate slurry, and then performing subsequent cleaning, filtrating, drying and calcining processes to prepare **tourmaline** powder. The method of the invention can be used to obtain the powder containing **tourmaline** directly, the conditions of the whole preparation method are mild, the method is easy to realize and the cost is low. The precipitate product can be dispersed and calcined to obtain nanometer **tourmaline** powder which can be conveniently used in fields such as medical treatment and **health** care, environmental protection, construction and the like.

13. Interrior decoration grout of a building — KR20060104643 — 2005-03-31 — SUNWOOYOUNGCHUN MINING* — 64 %

PURPOSE: A manufacturing method for eco-friendly interior decorative mortar and the mortar are provided to contribute to promotion of **health** by controlling the humidity of an indoor residential space and solving sick house syndrome using illite and **tourmaline** and radiating far **infrared** rays.
CONSTITUTION: A manufacturing method for eco-friendly interior decorative mortar comprises the steps of: gathering high-quality illite and drying naturally using sunlight, and then firing at 500-600.deg.C for 30 minutes-2 hours using a tunnel furnace and crushing into the size of 250-400 meshes using a crusher; adding 20-40 weight percent sand to the crushed 35-60 weight percent illite to keep strong not to be separated easily when mortar is used as interior decorative materials; inputting 1-5 weight percent **tourmaline** to the addition; and inputting 10-20 weight percent natural inorganic stabilizer to the addition and mixing with water, wherein the natural inorganic stabilizer is composed of 50-60 weight percent **silicon oxide**, 15-25 weight percent **aluminum oxide**, 5-15 weight percent **magnesium oxide**, 10-30 weight percent calcium **oxide** and 1-10 weight percent yellow soil.
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14. Screen printing body and manufacturing method thereof — JP2004314543 — 2003-04-18 — ERUBU* — 63 %

PROBLEM TO BE SOLVED: To provide a printing body and a manufacturing method thereof which make **functionality** exerted efficiently in the use for the livelihood, in the main, wherein a **functional** material having properties of generating minus ions or having far-**infrared** radiation properties, deodorizing, antimicrobial, antiallergic or antioxidant properties or relaxation properties is used in contact with or in proximity to a human body or for improving an indoor or in-vehicle environment, by devising specific technical means on the occasion of employing the **functional** material.
SOLUTION: This screen printing body has a structure wherein a print part (2) printed by a screen printing method and constituted of an ink composition comprising, as requisite components, a **ceramic**-containing **functional** component (A) selected from (a1), (a1)+(a3), (a2)+(a3) or (a1)+(a2)+(a3) when a **functional ceramic** is denoted by (a1), a **ceramic** other than (a1) by (a2) and a **functional** substance being an organic one or an inorganic one other than (a1) by (a3), and a binder (B), is formed in the shape of a pattern on a porous object (1) constituted of a foam or an intertwined fiber body.
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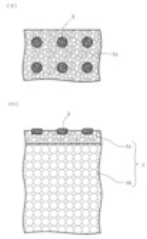


15. Melamine material, preparation method and application thereof — CN101565534 — 2009-03-24 — HEBEI UNIVERSITY OF TECHNOLOGY* TIANJIN XINGHEXI TECHNOLOGY* — 63 %

The invention relates to a melamine material, a preparation method and an application thereof. The melamine material is characterized in that components have following weight percentages: 2 percent to5 percent of **functional** powder, 2 percent to 5 percent of inorganic antimicrobial and 90 percent to 96 percent of melamine resin; the **functional** powder consists of components with the following weight percentages: 7 percent to 35 percent of **tourmaline**, 12 percent to 35 percent of ferrite, 10 percent to 20 percent of kaoline clay, 5 percent to 20 percent of **silicon oxide**, 5 percent to 20 percent of alumina, 5 percent to 20 percent of calcium **oxide**, 2 percent to 5 percent of polyacrylic acid and 1 percent to 5 percent of rare earth; the average particle diameter of the **functional** powder is lessthan or equal to 1micron; the inorganic antimicrobial is nano silver-series antimicrobial powder or nano zinc **oxide**. The preparation method adopts the composition of the melamine material and the following processes of: 1. the preparation of **functional** powder; 2. the modification treatment of **functional** powder; and 3. the preparation of melamine material. The melamine material is mainly used formanufacturing antibacterial and **healthcare** melamine cookers, food and drink containers and water wares by adopting an injection molding method or a press molding method.

16. Antibacterial nano supported materials capable of releasing anion and preparation method and use thereof — CN1664020 — 2004-03-03 — TECHNICAL INSTITUTE OF PHYSICS & CHEMISTRY CHINESE ACADEMY OF SCIENCES* — 60 %

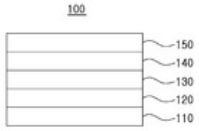
The invention relates to an inorganic nanometer modifying **functional** material and the applying field, particularly relates to silver nitrate, **titanium oxide**, acetylene composite antibiotic material releasing negative ions and the preparing method and its application. Taking the nanometer or sub-micron acetylene granule as the inner core, adsorbing silver nitrate on the surface of the acetylene granule, mixing with **titanium oxide**, making it covered with silica dioxide or alundum layer, then getting the antibiotic nanoloading material releasing negative ions. The product size is between 52nmí½4050nm. The composite is characterized by the property of releasing negative ions, antibiosis and so on, said product can be used as antibiotic **health** care material together with textile, paint, ceramics, plastic, rubber, paper or chemical fiber material.

17. Conductive anti-pollution paint for sea and method for preparing same — CN101333350 — 2008-07-02 — DALIAN MARITIME UNIVERSITY* — 54 %

A conductive marine antifouling paint and a preparation method thereof, belonging to the technical field of preparation and application of marine antifouling paint and in particular relating to the preparation and application of nontoxic conductive marine antifouling paint. Firstly, a composite antifouling composition is prepared by taking super-fine tourmalin powder and nano zinc **oxide** powder asmaterials and coating a layer of **silicon** dioxide on the surface of the super-fine tourmalin powder and nano zinc **oxide** powder, and the nontoxic conductive marine antifouling paint is prepared by dispersing composite antifouling composition, film-forming matter, conductive powder and addition agent. The conductive marine antifouling paint is applicable to antifouling protection of boats and ocean structures and has the good effect of preventing the adhesion of halobios. The invention is mainly suitable for antifouling protection of boats and ocean structures.

18. Solar cell and manufacturing method therefor — WO2014204130 — 2014-06-12 — John Yung - Kwon — 43 %

The present invention relates to a structure of a solar cell for improving photoelectric conversion efficiency of the solar cell, and a manufacturing method therefor. One aspect of the solar cell according to the present invention relates to a solar cell having a light-absorbing layer formed between two electrodes arranged to face each other, wherein an electrical polarization layer comprising an electrical polarization material forming an inner electrical field is formed between the electrodes and the light-absorbing layer.

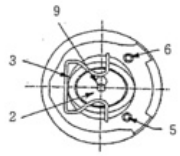


19. Selenium-germanium rich composite zeolite group poison-filtering cigarette tip — CN103892461 — 2014-03-22 — NANTONG SNAKEBITE THERAPY INSTITUTE* — 36 %

The invention discloses a selenium-germanium rich composite zeolite group poison-filtering cigarette tip, and belongs to the technical field of production of the cigarette tips capable of reducing flue gas poisons. The selenium-germanium rich composite zeolite group poison-filtering cigarette tip is made by hybrid nano powder capable of supplementing selenium and germanium to resist oxidation and remove free radical, highly adsorbing benzopyrene a of smoke compounds, reducing tar nicotine, sterilizing, eliminating smoke poisons and reducing nitrosamine and generating oxygen and reducing carbon monoxide (CO) and cellulose acetate fibers, polypropylene, pure fibers and the like. The selenium-germanium rich composite zeolite group poison-filtering cigarette tip has **functions** of highly resisting the oxidation and removing the free radical, adsorbing and filtering benzene, formaldehyde, binitro propane, hydrazine, urethane, ene chloride, the carbon monoxide (CO), acetaldehyde, oxynitride, hydrocyanic acid, amine, acrolein and the like in a smoke phase and tar and nicotine, pyridine, dipyridyl and derivatives thereof in a granule phase and highly cancerogenic poisons and heavy metal of multi-level polycyclic aromatic hydrocarbon, so that smoking harms to the body can be reduced, smoking poisons can be removed, **health** can be protected, and cancers can be prevented.

20. Lower alcohol activated with plough catalyst and fuel additive comprising the same — WO2004061056 — 2003-12-22 — M & W* — 15 %

A fuel additive which can inhibit the emission of harmful gases from a fuel such as gasoline or gas oil without adversely influencing the consumption of the fuel and with which the fuel can be stably stored; and a fuel composition containing the fuel additive added thereto. Also provided are: a method of activating a lower alcohol which comprises bringing the lower alcohol into contact with a substance activated by heating and pressurizing in the presence of wood vinegar and/or bamboo vinegar or with a material formed by processing the substance; a lower alcohol activated by the method; and one or more lower alcohols comprising the activated lower alcohol. The fuel additive comprises the one or more lower alcohols. The fuel composition comprises a fuel and the fuel additive.



21. Cosmetic — JP2003155215 — 2002-05-07 — KANEBO* — 7 %

PROBLEM TO BE SOLVED: To provide a cosmetic having improved chroma, giving the skin or the like bright color and favorable complexion, and affording good feeling in application. SOLUTION: This cosmetic contains modified powder which is prepared by coating transparent inorganic powder having crystalline structure with a colorant; wherein it is preferable that the inorganic powder is selected from quartz, synthetic quartz, crystal, amethyst, emerald, sapphire, ruby, garnet and rutile, having a mean primary particle size of 3-20 μm.