

**WO2008130099A1 - SANITARY CLOTH MADE OF HEMP**

*KIM, JU-HWAN*

Published 2008-10-30

The present invention provides an elastic sanitary fabric made of hemp, wherein the fabric is characteristically formed by blending the hemp fiber with at least one general fiber selected from cotton, rayon, polyester and wool at a certain weight ratio for spinning, resulting a blended spun yarn, and forming a fabric by using the blended spun yarn as a weft or a warp or a pile yarn. According to the present invention, it is possible to obtain a low-cost fabric made of hemp which shows characteristic effects of hemp such as antibacterial activity, deodorization effect, far-infrared emission and the like, while making up for general defects of hemp with complementary qualities of other general fibers.

**EP1593775B1 - WATER-VAPOUR PERMEABLE, FUNGAL RESISTANT COATED FABRIC**

*SATTLER AG*

Published 2008-10-29

Water vapor-permeable, fungus-resistant coated fabrics, useful as boat coverings and tent components, obtained by impregnating with antifungal and hydrophobizing agents and coating with polyurethane. Production of water vapor-permeable, fungus-resistant coated fabrics involves: (i) impregnating a pre-cleaned fabric with an aqueous composition containing an antifungal agent and a hydrophobizing agent; (ii) drying; (iii) coating with an aqueous polyurethane dispersion, also containing an antifungal agent and optionally other additives (e.g. coloring pigments); (iv) drying; (v) post-impregnating with an aqueous hydrophobizing composition; and (vi) drying. An INDEPENDENT CLAIM is included for the coated fabrics obtained by the process.

**US20080199611A1 - FABRIC WITH A MOISTUREPROOF, DUSTPROOF, AND ANTIBACTERIAL FUNCTION**

*HANNSPREE, INC.*

Published 2008-08-21

The present invention relates to a fabric having a three-layered structure: a fiber substrate, a parylene layer, and an antibacterial layer. The fiber substrate is the fiber part of the fabric; the parylene layer is capable of providing a moistureproof and dustproof effect as well as preventing the fiber substrate from being catalyzed by photocatalyst and decomposed thereby; the antibacterial layer, which comprises nano-photocatalyst and/or nano-silver particles, is used to kill pathogenic germs.

**EP1959040A1 - WARP-KNIT FABRIC**

*FIRSTER CO., LTD.*

Published 2008-08-20

A thread and a fabric are provided which are capable of being dyed to have a desired color and are formed of a metal-plated yarn excellent in antibacterial and electro-magnetic shielding properties. The thread for achieving this object is a composite thread consisting of a chain stitch yarn formed of a dyeable yarn and a metal-plated yarn inserted as a core yarn into the chain stitch yarn. A fabric or a weft-knit product formed of the composite yarn is excellent in antibacterial and electro-magnetic shielding properties and capable of having a favorable appearance of desired color. If the metal-plated yarn is directly arranged in the warp-knit fabric, the metal-plated yarn is preferably inserted to be invisible to a human eye from the surface of the warp-knit fabric.

**EP1312705B1 - YARN HAVING LAMINATED STRUCTURE**

*TRI-THECHS INC.; TOYOSHIMA & CO., LTD; OMORI, MICHIKO*

Published 2008-08-13

A laminated yarn, which is characterized in that it is prepared by a method comprising evaporating an antibacterial metal onto a synthetic resin film to form a vapor deposition membrane, adhering the resultant synthetic resin films so as for the vapor deposition membrane to be positioned inside, and cutting the resultant laminated film having a sandwiched structure in a long narrow form along its longitudinal direction. The yarn is free from the lowering of antibacterial activity by repeated washing, is excellent in the prevention of rise in its temperature, the insulation of heat and an electromagnetic wave, and antistatic properties, and has excellent appearance.

**JP2008168435A - ANTIBACTERIAL WATERPROOFING CLOTH**

SEIREN CO LTD

Published 2008-07-24

PROBLEM TO BE SOLVED: To provide an antibacterial waterproofing cloth which is excellent in waterproofing properties and durability. SOLUTION: The antibacterial waterproofing cloth comprises a resin membrane containing silver, and is characterized in that the silver is contained in inorganic particles and exposed to the surface of the resin membrane.

**JP2008150741A - CLOTHING ITEM**

CLEVER, KK

Published 2008-07-03

PROBLEM TO BE SOLVED: To provide a clothing item applied with effects of bactericidal properties, antibacterial properties, deodorant properties and moisture retaining properties, producible at a low cost, and knitted with silver-plated fiber yarn. SOLUTION: A pair of socks is knitted through interknitting silver yarn and silk yarn. The silver yarn can comprise the whole socks or comprise only a necessary part. The socks can be formed in a shape covering the whole toe part in one body or a shape of five-toe shape. As a result of this, a part directly touching the skin becomes effective to bactericidal properties, antibacterial properties, deodorant properties and electrostatic prevention owing to silver ion of the silver yarn, and at the same time, a silk part is effective to moisture retaining properties, hygroscopic property and ultraviolet prevention, so the socks as the whole has moderate moisture retaining effect to prevent dryness of the heel. It is possible to effectively and concentratedly improve bactericidal properties, antibacterial properties, deodorant properties and hygroscopic property by increasing a silver yarn ratio for a necessary part.

**JP2008111221A - ANTIBACTERIAL DYED FABRIC**

ASAHI KASEI FIBERS CORP

Published 2008-05-15

PROBLEM TO BE SOLVED: To provide a composite dyed fabric product causing after dyeing no decrease of antibacterial activity but having excellent antibacterial activity and excellent in feeling, water absorptivity and color fastness performance to dyeing, and comprising a polyester fiber containing an inorganic antibacterial agent and a polyester fiber containing no inorganic antibacterial agent. SOLUTION: A dyed fabric, which comprises  $\geq 30\%$  polyester fiber containing an inorganic antibacterial agent and has  $\geq 4$  cm<sup>2</sup> water absorbing and diffusing area and  $\geq 2.2$  bacteriostatic activity value of *Staphylococcus aureus*, is provided, wherein the bacteriostatic activity value is that of a fabric treated with a water-soluble polyester resin and then with reduction cleaning treatment at 80°C reduction potential of  $\leq -900$  mV, or of a fabric treated with dyeing or reduction cleaning at 80°C reduction potential of  $\leq -900$  mV and then treated with a hydrophilic material.

**US20080114279A1 - MULTILAYER LAMINATE WOUND DRESSING**

ARGENTUM MEDICAL, LLC

Published 2008-05-15

A flexible, multilayer wound dressing with antibacterial and antifungal properties, together with methods for making the dressing. The dressing includes a layer of silver-containing fabric, a layer of absorbent material, and (optionally) a layer of flexible air-permeable and/or water-impermeable material. The dressing can be used for prophylactic and therapeutic care and treatment of skin infections and surface wounds (including surgical incisions), as a packing material, and as a swab for surface cleaning.

**US20080102217A1 - PROCESS FOR ANTI-MICROBIAL TEXTILES TREATMENT**

Lin, Yu-Te (Inventor)

Published 2008-05-01

A process for anti-microbial textile treatment which provides durable and anti-microbial textiles and methods for preparing same. Such textiles can be readily prepared using a wet curing process to covalently attach a Complex Formula Compounds to a cellulose based material or other polymeric material. Once prepared, the textiles of the present invention have a broad spectrum of biocide activity against pathogenic micro-organisms, and durability and efficacy of the antimicrobial properties.

**WO2008015093A2 - TEXTILE MATERIAL FOR MANAGEMENT OF SKIN HEALTH COMPLICATIONS ASSOCIATED WITH SKIN FOLDS, AND ITS METHOD OF USE**

COLOPLAST A/S; TAUER, KEVIN C.; BOYER, III, CHARLES E.; SCHWARTZ, RONALD J.; GARVIN, CATHERINE M.

Published 2008-02-07

A textile material for management of skin health complications associated with skin folds includes a disposable textile of selected dimensions, impregnated with a selected concentration of an antimicrobial silver complex. The disposable textile is designed to be placed within a skin fold for management of skin health complications associated therewith. A method of use of the disposable textile material includes the steps of performing a routine skin inspection, selectively using a skin cleanser to topically clean the skin fold, selectively using an antifungal powder to topically cover the skin fold, determining approximate dimensions of the skin fold, providing the textile material dimensioned such that at least one selected portion is exposed to air outside of the skin fold, and placing the textile material over skin of the skin fold such that the skin fold may envelope the textile material with the at least one selected portion thereof being exposed to air.

**WO200801748A1 - A PROCESS FOR OBTAINING HIGH VALENCE SILVER-CONTAINING TEXTILES AND THE PRODUCTS THEREOF**

SHENZHEN YUANXING BIO-PHARM SCIENCE & TECHNOLOGY CO., LTD.; ZHENG, RONGYU; JIANG, HUADE; LUO, XIAOMING; SUN, YONG; QIU, DONGZHAO; ZHENG, YIDUAN

Published 2008-01-31

A process for obtaining high valence silver-containing textile with antibacterial properties is presented. The process includes: 1) preparing  $H_4Ag_2O_6$  solution; 2) impregnating a textile in the solution derived from step 1 for 10 sec. to 30 min.; 3) rolling the textile derived from step 2 by the nip manner with the nip gap in the range of 0.01 - 2.0 mm for controlling the amount of silver carried by the textile; 4) pre-drying the textile derived from step 3 in a pre-drying section at 50 - 120 °C for 1 - 5 min., and then baking in a main baking section at 100-190 °C for 5 - 10 min. The products produced by said process are also presented.

**JP2008013856A - FABRIC FOR SHAPE-UP GARMENT, AND SHAPE-UP GARMENT USING THE SAME**

KOMATSU SEIREN CO LTD

Published 2008-01-24

PROBLEM TO BE SOLVED: To provide a fabric for a shape-up garment, which is excellent in perspiration and also has antibacterial property, and to provide a shape-up garment using the fabric. SOLUTION: The fabric is formed with a moisture-impermeable non-porous urethane resin film including silver on at least one surface of fibrous fabric. The shape-up garment fabric has a moisture permeability of  $<2,000 \text{ g}/(\text{m}^2 \times 24 \text{ h})$ , and also contains aluminum powder. The shape-up garment is obtained by sewing the shape-up garment fabric.

**WO2008000796A2 - ANTIMICROBIAL TEXTILE**

THOR GMBH; BUTZ, VOLKER; SCHIWEK, THOMAS

Published 2008-01-03

The invention relates to a textile which is equipped with a biocidal substance. The textile according to the invention is characterized in that 2-n-octyl-4-isothiazoline-3-on is contained as the biocidal substance and optionally one or more other biocides, and in that the biocidal substance is embedded in aminoplastic resin microparticles. By embedding the biocidal substance in the microparticles the biocidal substance remains on the textile during drying and condensation while the textile is finished. In practice, the biocidal substance is released only slowly and is not washed out when the textile is exposed to rain or soaked, thereby preventing the biocidal substance from escaping largely already when the textile is finished or preventing it from being washed out from canvas, awnings, filters, tarpaulin, shower curtains and the like after a few downpours.

**EP1316635B1 - MATTRESS COVER FABRIC WITH BARRIER EFFECT**

ORLANDI S.P.A.

Published 2007-12-26

The present invention describes a new mattress cover sheet with barrier effect against bacteria and parasites, consisting of a spunlace fibre based fabric. The spunlace fabric mattress cover can be produced in a structure with one or more layers, and can contain antibacterial substances. The sheet subject of the invention provides an effective barrier between the person and the mattress, in particular avoiding the transfer of pollutants from the mattress to the person and at the same time protecting the hygiene of the mattress itself.

**EP1866148A1 - MULTI-PLY TECHNICAL COMPOSITE WHICH IS BREATHABLE AND MOISTURISING, RELEASES ACTIVE CONSTITUENTS AND PROMOTES THEIR ABSORPTION, AND CAN BE USED AS A MEDICAL AID OR TO MAKE CLOTHING OR STRUCTURES THAT COME INTO DIRECT CONTACT WITH HEALTHY OR DISEASED SKIN**

BOTTINI, EMILIO

Published 2007-12-19

The invention relates to a multi-ply technical composite, usable in particular for making medical aids, garments and medical articles, comprising at least two layers, the first of which, in contact with the skin, is a cotton fabric (elasticised to a greater or lesser extent) or silk, or fabrics to which chitosan, silver or another antibacterial substance or active constituent is added, and the second, outer layer is constituted by a semipermeable membrane, such as polyurethane between 5 and 80 microns thick, with considerable elasticity in order to ensure the user's comfort. Receptors rechargeable with active constituents are inserted into fabric and protected by the polyurethane membrane.

**EP1425050B1 - ANTIBACTERIAL WOUND DRESSING**

CONVATEC LIMITED

Published 2007-12-05

An antibacterial wound dressing is based on or derived from gel-forming fibres such as carboxymethyl cellulose or alginate fibres having silver ions linked thereto at some but not all of the exchangeable sites such that the distribution of silver ions over the exchangeable sites is substantially uniform. The silvered fibres for the wound dressing can be prepared by contacting an assembly of precursor gel-forming fibres having exchangeable sites under conditions which do not cause irreversible gelling of the fibres with an amount of a solution containing silver ions so as to link silver ions at some but not all of the exchangeable sites, the whole of the assembly of precursor gel-forming fibres being contacted essentially simultaneously with the entire solution containing silver ions.

**EP1859816A1 - THE PREPARING METHOD AND THE USE OF ANTISEPTIC MEDICAL DRESSING**

ORIGIEN MEDICAL TECHNOLOGIES

Published 2007-11-28

The present invention discloses a preparing method of antiseptic medical dressing which include, basificating chitosan fibre to form alkali chitosan fibre, etherificating the alkali chitosan fibre with chloroacetic acid to form carboxymethyl chitosan fibre, then opening, netting, needling the resultant carboxymethyl chitosan fibre to form a dressing. Optionally, the antiseptic carboxymethyl chitosan medical dressing can be made by producing chitosan non-woven cloth with non-woven technique, followed by carboxymethyl reaction with the dressing, cutting, packaging, sterilization. The present invention also discloses the use of antiseptic medical dressing prepared by method mentioned above. The present invention can be applied on surgery wound, burn, scald and other chronic wounds etc, by covering wound it can prevent water in body fluid from losing, providing a active humid condition for wound healing, keeping wound from hydrops, putrescence, isolating bacteria infection, and having the effects which can diminish inflammation, stanch, ease pain, and accelerating the wound healing.

**JP2007303017A - FLAME-RETARDANT ANTIBACTERIAL TEXTILE PRODUCT**

TEIJIN TECHNO PRODUCTS LTD

Published 2007-11-22

PROBLEM TO BE SOLVED: To provide a flame-retardant antibacterial textile product having excellent heat resistance and excellent flame retardance and washing durability in combination. SOLUTION: The flame-retardant antibacterial textile product is obtained as follows. Fibers containing a specific antibacterial agent in an amount of 0.1-50 wt.% based on the whole fibers are used in an aromatic polyamide fiber having a thermal decomposition temperature of  $\geq 400$  °C and an LOI value (limiting oxygen index) of  $\geq 25$  according to the JIS L 1091 E method.

**EP1856315A1 - COMPOSITE THREAD AND OBTAINED TEXTILE**

ACTIF WEAR

Published 2007-11-21

The invention relates to a composite thread, comprising a core and a shell. The core is produced from at least one thread of one or more metallic materials with biocidal properties. The shell is made from one or more textile fibres directly covering all or part of the core.

**EP1854346A1 - BIODEGRADABLE TEXTILE**

MIMCORD S.A.

Published 2007-11-14

The invention relates to a biodegradable flexible textile comprising long elements, such as yarns, staples or narrow fabrics, which are interlaced or crossed with one another and which are obtained from fibres of paper or a non-woven cellulose fabric, preferably originating from conifers. The textile can comprise treatments in order to increase cosmic radiation filtering properties and treatments with fire-retardant, water-repellent, fungicidal, bactericidal or dyeing substances. The invention also relates to the use of said textile in order to cover the internal surfaces of vehicles and aircraft or as a cover for glasshouses, tents and similar.

**EP1853692A1 - EXTENDED DELIVERY OF INGREDIENTS FROM A FABRIC SOFTENER COMPOSITION**

AMCOL INTERNATIONAL CORPORATION

Published 2007-11-14

A controlled delivery system for active ingredients, like a fragrance, for use in fabric softener products, such as tumble dryer sheets, rinse added liquids, and similar products, is disclosed. The delivery system enhances performance of an active ingredient, such as a fragrance. The controlled delivery system contains polymeric micro-particles highly loaded with the active ingredient. Other active ingredients that can be incorporated into a fabric softener composition using the delivery system include ironing aides, silicone fluids, antiwrinkle agents, antistatic agents, optical brighteners, fabric crisping agents, bleaching agents, germicides, fungicides, flow agents, and surfactants.

**US20070240266A1 - NOVEL METHOD OF DYEING THE TEXTILE ARTICLE FROM MEDICINALLY RICH HERBS**

Baid, Arum, Mohanlal (Inventor)

Published 2007-10-18

A novel method of dyeing the textile article from medicinally rich herbs, developed natural, unique, deep & fast coloured textile article having medicinal effect to cure number of diseases and shield the human skin. Successive stages of dyeing: Desizing, Bleaching, Scouring, Galling, Mordanting, Dyeing, Washing, Colour Fixing, Finishing. Textile article is pretreated with camel/buffalo/cow dung, Myrobalans & Alum for fixation & development of colour and finally with extract of herbs for dyeing. Salts of copper, chromium, tin & iron can also be use as mordant to modify the shade. In yarn dyeing, drying is done by hanging on Bamboo stick in sunlight and for even penetration of dye yarn is continuously rotating in dye solution. Novel herbal dyes, method & cloths made thereof, in chemical free, detergent free, non hazardous, eco friendly, pollution free, having Antiallergic, Antiseptic, Antimicrobial, Anticancerous functions.

**JP2007254939A - FUNCTIONAL CLOTH AND METHOD FOR PRODUCING THE SAME**

*TECHNOFINE KENKYUSHO, KK*

Published 2007-10-04

**PROBLEM TO BE SOLVED:** To provide a functional fiber cloth capable of attaining high initial photocatalytic activity by fixing titanium oxide photocatalyst powder with a binder and provide a method for producing the cloth. **SOLUTION:** A fiber cloth having deodorizing and antibacterial functions is produced by fixing titanium oxide photocatalyst powder having an average particle diameter of  $\leq 1 \mu\text{m}$  to a fiber cloth with an acrylic binder resin wherein the applied amount of the titanium oxide powder and the amount of the acrylic binder resin is set to 0.1-1.0 wt.% based on 100 pts. wt. of the fiber cloth and the applied amount of the acrylic binder resin is set to 10-100 wt.% based on 100 pts. wt. of the applied amount of the titanium oxide photocatalyst powder. The activation of the photocatalyst can be promoted to obtain a fiber cloth having high deodorizing and antibacterial functions by subjecting the fiber cloth processed with the photocatalyst to a treatment to immerse the cloth in water after removing minerals and organic materials from the water or subjecting to the treatment to blast steam and then dry the fiber cloth.

**WO2007089053A1 - TREATMENT METHOD OF INORGANIC ANTIBACTERIAL AGENT FOR TEXTILE**

*KIM, KEUK-JUN*

Published 2007-08-09

Disclosed herein is a method of depositing an inorganic antibacterial agent in a textile and a textile manufactured by the same. An inorganic antibacterial agent is manufactured by non-electrode plating, and the inorganic antibacterial agent is diluted in dyes or a fixing agent such that the inorganic antibacterial agent can permeate into the textile together with the dyes or the fixing agent, whereby the antibacterial activity is maintained even after the textile is washed several times.

**JP2007197848A - NONWOVEN FABRIC CLEANER FOR CLEANING**

*KINSEI SEISHI, KK*

Published 2007-08-09

**PROBLEM TO BE SOLVED:** To provide a nonwoven fabric cleaner for cleaning, which is free from water, is lightweight, does not have a risk of mold growth, does not require a fungicide and an antibacterial agent, and has an excellent cleaning ability. **SOLUTION:** This non-woven fabric cleaner for cleaning, having a total basis weight of 60 to 1,500 g/m<sup>2</sup> is produced by sequentially laminating a web layer formed from cellulosic pulp having prescribed heat-adhesive fibers by an air-laid method, a web layer formed from cellulosic pulp having prescribed heat-adhesive fibers and containing 1 to 50 wt.% of a powdery organic acid by an air-laid method, and a web layer formed from prescribed heat-adhesive fibers by an air-laid method, and then thermally bonding these heat-adhesive fibers to form the wholly integrated sheet.

**US20070178146A1 - SLOW RELEASE AGENT ABSORBENT DRESSING**

*Chou, Chang Tsung; Shih, Chia Ju (Inventors)*

Published 2007-08-02

A slow release agent absorbent dressing particularly comprises a wound-contacting layer covered with tapered apertures. The bottom surface of said tapered apertures contacts a wound area to discharge exudate from the wound area and transmit exudate via a guiding layer to an absorbent layer. Said absorbent layer formed of high-molecular polymeric fibers is mixed with a certain concentration of water-soluble agents, such as antiseptic agents, enzymes and growth factor agents, in a suitable amount. After exudate is into the absorbent layer, said polymeric fibers expand forming into the shape of gel to avoid exudate flowing backward to the wound area. Also, a translucent evaporating layer having numerous micro pores for air venting is above the absorbent layer and the peripheral edges are joined together in the form of a sealed structure by heat-sealing to stop side escape of exudate, which is more effective in preventing the wound area from secondary infection.

**US20070178145A1 - THREE DIMENSIONAL SLOW RELEASE AGENT ABSORBENT DRESSING**

*Chou, Chang Tsung; Shih, Chia Ju (Inventors)*  
Published 2007-08-02

A three-dimensional slow release agent absorbent dressing particularly suitable for use in sinus cavity or infective wounds comprises a wound-contacting layer surrounding outside of the dressing. The wound-contacting layer is a soft-film covered with tapered apertures and the bottom surface of said tapered apertures faces outside to contact a wound for discharging exudate from the wound in many directions and transmitting exudate via a diffusion guiding layer to absorbent articles. Said absorbent articles formed of high-molecular polymeric fibers are mixed with a certain concentration of water-soluble agents, such as antiseptic agents, enzymes and growth factor agents, in a suitable amount. After exudate is into absorbent articles, said polymeric fibers expand forming into the shape of gel to avoid exudate flowing backward to the wound, which is more effective in preventing the wound from secondary infection.

**US20070151038A1 - LONG-TERM ANTIBIOTIC AND DEODORANT TEXTILE WITH MESOPOROUS STRUCTURE AND PROCESSING METHOD THEREOF**

*TAIWAN TEXTILE RESEARCH INSTITUTE*  
Published 2007-07-05

A long-term antibiotic and deodorant textile with mesoporous structure and processing method thereof are provided. At first, a textile is dipped into an aqueous solution of a surfactant containing nanoparticles. An aqueous solution of a silicon source is prepared and its pH value is adjusted to about 5 to 9. Then, the aqueous solution of the surfactant and the aqueous solution of the silicon source are mixed to form a mixture solution. The mixture solution is stirred until silica powder form therein. The textile is taken out and dipped into water and organic solvent separately several times. Finally, the textile is dried to obtain the long-term antibiotic and deodorant textile with mesoporous structure

**US20070148449A1 - MULTI-FUNCTIONAL YARNS AND FABRICS HAVING ANTI-MICROBIAL, ANTI-STATIC AND ANTI-ODOR CHARACTERISTICS**

*Winterhalter, Carole, A. (Inventor)*  
Published 2007-06-28

The present invention is directed to yarns and fabrics that exhibit anti-static, anti-odor, and anti-microbial properties. The yarn is comprised of several groups of predetermined fibers. One of these groups of predetermined fibers comprises fibers that exhibit anti-microbial, anti-odor and anti-static characteristics. In one embodiment, the yarn comprises a first plurality of fibers, a second plurality of fibers that are different from the fibers of the first plurality, and a third plurality of fibers that are different from the fibers of the first and second pluralities. In one embodiment, the fibers which exhibit anti-microbial, anti-odor and anti-static properties are metallic coated fibers. Other fibers used to form different embodiments of the yarns include cotton, nylon, polyester, wool, Nomex, Kevlar, and stretch fibers.

**FR2894833A1 - ANTIVIRAL PROTECTIVE CLOTHING FOR USE DURING BIRD HANDLING, HAS ENVELOPE FORMING HOOD, POCKET FORMED BELOW CHIN, TUNIC AND PANTS MADE UP OF TRANSPARENT PLASTIC SHEETS, AND AIR CIRCULATION AND TREATING UNIT INCLUDING AIR INFUSION FILTERS**

*FURS EDWARD*  
Published 2007-06-22

The clothing has an envelope forming a plastic hood, a pocket formed below a chin, and tunic and pants made up of two transparent plastic sheets joined at their edges and inflated with air. An air circulation and treating unit is arranged in the pocket and includes two air infusion filters whose dimensions are adapted to the flow of respirated air. The filters serve as air inlet and expel air rising by convection under effect of warming by the body heat, respectively. The filters are received in a frame inserted in the envelope.

**GB2432790A - A WOUND DRESSING WITH ACTIVE INGREDIENTS**

*RICHARDSON, DAVID WILLIAM*

Published 2007-06-06

A wound dressing in which active ingredients are administered to a wound by a multistage, multi-step sequential application. The dressing has a layered structure of selected medical products which may be activated by contact with wound exudates. The layers may be obtained by the use of micro-spheres incorporated into a single coating layer, a multiple coating of single layers, or a combination of coatings and non-woven base materials. The micro-spheres comprise a sheath and a core, with the sheath formed from haemostat Alginate and the core containing anti-bacterial honey. The base material may contain a silver anti-bacterial ingredient. The dressing may include a low adherent contact layer such as a perforated film and a water repellent layer such as polyurethane film on the side opposing the wound contact side.

**JP2007130047A - WIPING CLOTH AND METHOD OF MANUFACTURING THE SAME**

*TORAY IND INC*

Published 2007-05-31

PROBLEM TO BE SOLVED: To provide a wiping cloth excellent in water absorbency, water retentivity, wiping capability and washing resistance, with high antibacterial and wiping properties, which can be widely used as an industrial or home wiping cloth, and effective in both dry and wet wiping. SOLUTION: The wiping cloth is made of a textile with a multi-layer structure comprising 50-80% by weight of extra fine synthetic filament fiber A whose monofil fineness is at least 0.001 dtex and less than 1.0 dtex, and 50-20% by weight of synthetic filament fiber B whose monofil fineness is at least 1.0 dtex and not more than 10 dtex. The wiping cloth has pile at least on one side.

**EP1789620A1 - METAL-COATED TEXTILE**

*KABUSHIKI KAISHA SUZUTORA (SUZUTORA CORPORATION)*

Published 2007-05-30

An improved metal coated textile and its production method where the coating of metal is deposited onto the textile through sputtering process in thickness between 20 to 2000 angstroms, with less than 5% variance in thickness across the entire length and width of the textile with width up to and over 10000 mm and length up to and over 1000 meters. The improved sputtering process utilizes longer cathodes, arrangements of metal target(s), tension controller with tension meter(s), guard(s), cylinder cover(s), and control over the textile while traveling through the chamber. The metal layer deposited is highly adhesive to the textile and is suitable for producing clothing, swim wear, diving suit, tent, cushion, wall paper, curtain, carpet, protective cover, screen window, equipment casing, and various other items. The metal layer confers characteristics such as anti-bacterial, deodorizing, improved metallic appearance and texture, electrical conductivity, heat-shielding, heat retention, and dirt repellency to the textile.

**EP1755883A1 - TEXTILE CONSTRUCTIONS**

*MILLIKEN & COMPANY*

Published 2007-02-28

Moisture permeable textile constructions are disclosed. The construction comprises a textile substrate; the face side of the construction comprises a low energy surface; the reverse side of the construction may carry a primer and an adhesive that allows the construction to be securely attached to a support surface, yet may be readily removable without residue or damage to the support surface. The low energy surface may be printed, patterned, or otherwise treated to provide decorative and/or functional characteristics, as desired, depending on the intended use of the construction. Various chemical additives such as stain release agents, biocides, etc. may be incorporated into the construction.

**EP1465673B1 - WOUND DRESSINGS COMPRISING METALLIC SILVER**

*NOBLE FIBER TECHNOLOGIES, LLC*

Published 2007-01-24

A hydrophilic textile matrix having antibiotic activity is provided. The textile matrix is a non-woven material including a blend (i.e., mixture) of metallic silver-coated fibers and a non-metallic, water absorbent material. Wound dressings incorporating the textile matrices are provided.

**US20060286152A1 - FABRIC-SUPPORTED CHITOSAN MODIFIED TEMPERATURE RESPONSIVE PNIPAAm/PU HYDROGEL AND THE USE THEREOF IN PREPARATION OF FACIAL MASK**

THE HONG KONG POLYTECHNIC UNIVERSITY  
Published 2006-12-21

This invention involves fabric-supported chitosan modified temperature responsive PNIPAAm/PU hydrogel and the use thereof in preparation of facial mask. The merit of this invention is the hydrogel formed can reversibly swell and deswell near body temperature; the incorporation of PU can suppress the syneresis of PNIPAAm at an elevated temperature; Grafting of PNIPAAm and PU onto the surface of cellulose fabrics can enhance the mechanical strength of hydrogel; Coupling of chitosan to the surface of hydrogel can not only improve the handle and skin affinity, but also render the facial mask antibacterial; The hydrogel is capable of loading a variety of nutrients (or other functional components), which can release at body temperature; the hydrogel facial mask can be reusable with repeated rinsing.

**EP1317577B1 - FABRIC WITH ORIENTED AND SELECTIVE ANTIBACTERIAL, ANTIMICROBIAL OR FUNGICIDE ACTIVITY, METHOD FOR MAKING SAME AND USES**

ABEIL S.A.  
Published 2006-12-13

The invention concerns the orientation of the activity (or activities) of textile fabrics, and in particular their activity, but also antistatic, antimicrobial, antifungal, and like useful functions, the orientation of the activity (or action, or function, those being equivalent terms) of the textile fabric, and in particular the antibacterial activity being produced from one surface of the textile fabric relative to the other. So-called double-face fabrics are obtained, whereof one of the surfaces exhibits biological (antibacterial, antimicrobial, mothproof, insecticide, fungicidal or generally antiparasitic), cosmetic, pharmaceutical, antistatic, antibacterial activity with controlled dosage and the other surface exhibiting no activity. The inventive method for producing fabric orientation consists in using in the preferred embodiment the technique called satin weave or serge weave.

**JP2006327977A - CLOTH PRODUCT HAVING PRINTED LAYER CONTAINING BAMBOO POWDER**

KURABO IND LTD; HIYOSHI SENGIYOU, KK  
Published 2006-12-07

PROBLEM TO BE SOLVED: To provide cloth products having a printed layer but nevertheless excellent in moisture absorbing and releasing properties, and excellent in antibacterial properties and ultraviolet shielding properties. SOLUTION: The cloth product has a printed layer containing bamboo powder obtained by crushing the skin parts-removed bamboo trunk. The cloth products, even their parts having a printed layer, are excellent in moisture absorbing and releasing properties and, further, excellent in antibacterial properties and ultraviolet shielding properties.

**JP2006299471A - TEXTILE PRODUCT MODIFYING AGENT, METHOD FOR MODIFYING TEXTILE PRODUCT AND TEXTILE PRODUCT MODIFIED WITH THE SAME**

HATAKE ISAMU  
Published 2006-11-02

PROBLEM TO BE SOLVED: To provide a textile product achieving flame retardance, deodorizing properties and weather resistance and affording safe and comfortable use of the textile product over a long period by modifying the textile product such as paper, a raw yarn or a fabric according to a simple and safe method. SOLUTION: An aqueous modifying agent for the textile product comprises an ultraviolet light absorber, monoammonium phosphate, diammonium phosphate, an antiseptic component, a deodorizing component and a vegetable extract liquid in magnetic treated active water. A method for modification is carried out as follows. The textile product is impregnated with the aqueous modifying agent for the textile product and dried. Thereby, the method for modification comprising imparting flame retardance, deodorizing properties and weather resistance to the textile product such as the raw yarn of a natural material or a woven fabric is provided.

**GB2424654A - FLAME-RETARDANT LAMINATED FABRICS**

CLARKSON TEXTILES, LIMITED

Published 2006-10-04

A coated fabric having a base fabric and an auxiliary layer laminated thereto, wherein the exposed face of the auxiliary layer is coated with a coating composition, preferably a flame retardant or a water-repellent, more preferably antimony trioxide. The coating composition may also comprise anti-microbial agents or anti-fungal agents. The base fabric and the auxiliary layer preferably comprise a polyester fibre and are glued together. In another aspect, a method of providing said coated fabric by application of a chemical coating composition to the opposite side of the auxiliary layer to the side in contact with the base fabric. In yet another aspect, a method of providing said coated fabric by first applying a chemical coating composition to one side of the auxiliary layer and then securing the base fabric to the other side of the auxiliary layer.

**WO2006088342A1 - TEXTILE ARTICLE FOR THERAPEUTIC USE**

LYASHENKO, Inga; NOUSIAINEN, Pertti; PYYKKO, Ilpo (Inventors)

Published 2006-08-24

This invention deals with the field of textile manufacturing and medical industry and concerns the manufacture of textiles such as: tights, stockings, socks, shinguards, wristlets, cuffs, elbow pads, gloves, T-shirts, shirts, drawers, tube-like articles for partly amputated extremities, non-elastic bandage, elastic bandage, interfacing, bandage etc. These items prevent fungal and bacterial infections and facilitate the treatment and prevention of venous insufficiency as well as improving the condition of feet in diabetes mellitus. The goal of this invention is the manufacture of textiles causing pressure on the enveloped surface of the body and possessing a prolonged antiseptic and bio-stimulating effect. The goal is attained via a basic interlacing of metallic threads with a double even coating, the internal layer contains a natural antiseptic, and the external layer contains metallic coating. In addition to that, the products contain threads with human composites. The textile products are used in surgery, dermatology and hygiene.

**JP2006207046A - ANTIBACTERIAL PAPER, NONWOVEN FABRIC OR TEXTILE PRODUCT**

KUJIRA HOUSE, KK; KOCHI PREFECTURE

Published 2006-08-10

PROBLEM TO BE SOLVED: To provide an antibacterial agent having stable antibacterial action and deodorizing action, and paper, nonwoven fabric and textile product having antibacterial property and deodorizing property. SOLUTION: The paper, nonwoven fabric or textile product contains a polyphenol and  $\alpha,\alpha$ -trehalose. The polyphenol is preferably an extract derived from vegetables. The paper, nonwoven fabric or textile product can be further incorporated with common salt, salts in sea water or sea water containing the salts to achieve stronger antibacterial property.

**JP2006207100A - Cem<sup>®</sup> PROCESSED UNDERWEAR/CLOTHES GIVING FRESHNESS RETAINING FUNCTION TO BODY WEARING**

KOMATSU MASAMI

Published 2006-08-10

PROBLEM TO BE SOLVED: To provide Cem<sup>®</sup> processed underwear/clothes giving freshness retaining function to the body wearing, capable of keeping freshness retention (water retention effect and fungistatic deodorizing effect) of a person wearing the Cem<sup>®</sup> processed underwear/clothes or a thing without using preparations of chemicals such as a water retention agent or an antibacterial agent even if repeating washing or not washing. SOLUTION: This Cem<sup>®</sup> processed underwear is soaked in (or sprayed with) water [called as Cem<sup>®</sup> processed water] obtained by giving high voltage to tap water mixed with ozone gas. Soaking the fabric of underwear/clothes to be processed in Cem<sup>®</sup> processed water is added to a process of using tap water (tap water in a factory is all right) in a process of color fixing or washing of the fabric, and it is all right to add regardless of particular temperature or humidity.

**EP1686854A1 - METHOD FOR CONTROLLING FUNGI AND MITES IN TEXTILE SUBSTRATES**

SYNGENTA PARTICIPATIONS AG

Published 2006-08-09

The present invention, therefore, relates to a method for prophylaxis, control or reduction of fungi in a textile substrate, which comprises applying to a textile substrate that is susceptible to fungal infestation an amount effective for the prophylaxis, control or reduction of fungi of at least one fungicidal compound. The invention further provides a method for the prophylaxis, control or reduction of both fungi and dust mites in a textile substrate, which comprises co-application to a textile substrate that is susceptible to fungal and dust mite infestation of a prophylactic or acaricidally effective amount of a suitable acaricide and a prophylactic or fungicidally effective amount of at least one fungicidal compound.

**US20060171999A1 - TEXTILES WITH CHITOSAN CORE-SHELL PARTICLES**

*Xin, John Haozhong; Li, Pei; Ye, Weijun (Inventors)*

Published 2006-08-03

The present invention describes a novel antibacterial treatment on textile materials using polymeric core-shell particles dispersing in water. These particles are prepared from a surfactant-free emulsion polymerization according to the method of U.S. Pat. No. 6,573,313 and have average particle sizes in the range of 100 to 1000 nm in diameter. When applied to a textile article, the particles form a uniform coating, which prevents the growth of bacteria and microbes. The treatment does not affect the fabric mechanical properties, hand feeling and appearance. Antibacterial activity on cotton is maintained even after 50 times of home laundering.

**JP2006200086A - CLOTH DYED AND PROVIDED WITH DEODORIZING FUNCTION**

HODOGAYA CHEM CO LTD; KOMIYAMA JIRO

Published 2006-08-03

PROBLEM TO BE SOLVED: To provide a dyed cloth having an excellent deodorizing effect by mordanting with indigo, without requiring to contain an antibacterial substance, etc., in the fiber and without requiring the introduction of a reactive group such as carboxy group in a part of the fiber for having the deodorizing property. SOLUTION: The dyed cloth having a deodorizing function is provided by dyeing using the indigo and then post-mordanting with the solution of a metal salt. And the method for performing the dyeing and impartation of the deodorizing function of the cloth at a same time is provided by dyeing using the indigo and then post-mordanting with the solution of the metal salt.

**US20060150294A1 - DISPOSABLE UNDERARM GARMENT LINER**

*Yanamadala, Lakshmi (Inventor)*

Published 2006-07-13

An underarm garment liner for preventing a wearer's perspiration from soiling a garment is disclosed. The liner includes, in its simplest embodiment and in the following order, a non-woven layer, an air laid paper layer, a hygroscopic absorption layer, a water-impervious layer, and an adhesive layer. The non-woven layer is adapted for contacting the wearer's skin and to convey perspiration away from the skin through capillary action to the absorbent air laid paper layer, which draws moisture away from the non-woven layer and conveys the moisture to the hygroscopic absorption layer. The layers are all preferably adhered together through use of hot-melt adhesive, or the like. The water-impervious layer is comprised of a vapor-pervious "breathable" thermoplastic polymer to prevent heat buildup between the liner and the wearer. Deodorizers, antibacterial agents, aloe, vitamin E, and petrolatum may all be further included in the liner. A layer of release paper temporarily affixed to the adhesive layer, such that the release paper may be peeled away from the adhesive layer by the wearer in order to expose the adhesive layer prior to use.

**JP2006176914A - FABRIC HAVING EXCELLENT FLAME RETARDANCY AND ANTIBACTERIAL PROPERTY, AND TEXTILE PRODUCT PRODUCED FROM THE SAME**

TOYOBO CO LTD

Published 2006-07-06

PROBLEM TO BE SOLVED: To provide a fabric that can retain excellent flame retardancy or antibacterial property that is resistant to washing or abrasion without deterioration, by mixing a flame retardant polyester copolymer and an antimicrobial acrylonitrile fiber having the photocatalytic activity. SOLUTION: The fabric is produced by using a polyester flame retardant fiber and an antimicrobial acrylonitrile fiber and the LOI value after 50 times washing or the friction according to JIS L 1076 (1992) D-3 method and obtains LOI value of more than 26. Under the fluorescent lamp, the fabric has excellent antimicrobial property and the antibacterial activity is larger than 0 against Staphylococcus aureus, pneumobacillus, and MRSA.

**WO2006067516A2 - A TEXTILE WITH BIOCIDAL ACTIVITY**

ENDUROCID LIMITED

Published 2006-06-29

A treatment method for providing a textile with a durable biocidal property which is resistant to washing is provided and comprises the steps of: saturating the textile with a liquid biocidal composition; impregnating the textile with a biocidal composition using a mangle; drying the textile to remove excess composition by heating; and baking the textile to fix the composition. A composition for use in conjunction with the method is also provided.

**JP2006124867A - EMBROIDERED RAW FABRIC**

SUN LOOK, KK

Published 2006-05-18

PROBLEM TO BE SOLVED: To provide an embroidered raw fabric comprising such a raw fabric as to have a surface on which a figure or a pattern is embroidered, capable of being simply manufactured at a low cost, having antibacterial properties, and capable of generating anions. SOLUTION: This embroidered raw fabric is formed by using a relatively thick string, then arranging the string on the surface of the raw fabric, and sewing the string on the raw fabric by machine-sewed stitches of a thin and strong yarn thread, wherein the string is as well furnished with the antibacterial properties, an anion-generating function, and the like.

**JP2006124907A - GARMENT**

MIZUNO CORP

Published 2006-05-18

PROBLEM TO BE SOLVED: To provide a garment excellent in a shape such as prevention of slippage and getting out of shape at the time of attaching and detaching, appearance retainability and wear of feeling, and also excellent in hygienic property and property of resistance to living things such as moisture absorbing and releasing property, heat retaining property, fungicidal property and antibacterial. SOLUTION: This garment has pockets, and a moisture absorbing releasing pyrogenic fabric is used for the pouch cloth of the pocket. The pouch cloth is a mixed weave exposing the moisture absorbing releasing pyrogenic fabric and another fabric on the front and back of a cloth, and the exposure degree of the moisture absorbing releasing pyrogenic fabric of the inside of the pocket is almost equal or larger compared to that of the outside.

**EP1490543B1 - ANTIMICROBIAL YARN HAVING NANOSILVER PARTICLES AND METHODS FOR MANUFACTURING THE SAME**

CC TECHNOLOGY INVESTMENT CO., LTD

Published 2006-05-10

The present invention provides a method for making the antimicrobial yarn. The present invention also provides a yarn with antimicrobial effects. The antimicrobial antifungal effect of the yarn is derived from nanosilver particles (diameter between 1 and 100 nm) which are adhered to the yarn. The yarn contains fibers which are made of cotton, linen, silk, wool, leather, blending fabric, synthetic fiber, or any combination thereof. The yarn can be used to make cloth to be used particularly for treating patients with burns or wound. The cloth made from the antimicrobial yarn can be further used to make clothes such as underwear, socks, shoe cushions, shoe linings, bed sheets, pillow cases, towels, women hygiene products, laboratory coats, and medical robes.

**WO2006033540A1 - WATERPROOF CLOTH WITH KEEPING WARM FUNCTION**

*YOUN, Byung Ho; SHIN, Jae Ok (Inventors)*

Published 2006-03-30

Disclosed herein is waterproof breathable cloth having a heat insulation function, including release paper; a first coating layer, formed by coating the upper surface of the release paper with a composition composed mainly of a one-component hydrophilic non-porous polyurethane resin; a second coating layer, formed by coating the upper surface of the first coating layer with a mixture composition composed mainly of a two-component hydrophilic non-porous polyurethane resin, a styrene monomer, and dimethylaminoethyl methacrylate; and cloth, attached to the upper surface of the second coating layer, the release paper being removed when using the waterproof breathable cloth. Therefore, the cloth of this invention can exhibit a heat insulation function by blocking the infiltration of external heat and cool air, and simultaneously, exhibit high breathability, allowing sweat to escape, along with waterproofness, antibiotic activity and deodorization functions, thanks to the lamination of waterproof and heat insulation coating layers.