



Patent Alert 2020-01

COATING & FINISHING

Method for producing a textile article with hydrophobised textile surface using plasma treatment and wet chemical processing

WO2019/076823 A1

Publication date: 2019-04-25

Applicant(s): GRATZL VERA, BRAKEMEIER ANDREAS DR, STEIDEL VOLKER, HOSSAIN GAFFAR, GRABHER GÜNTHER, LAUFFENMÜHLE, PLASMABIONIC, WERNER & MERTZ

A method for producing a textile article with a hydrophobic textile surface is described, comprising the steps of: plasma-treating a textile surface, so that a plasma-treated textile surface results and then wet-chemical treatment of the plasma-treated textile surface or a thereof in further steps produced textile surface with a water repellent, such that a plasma-treated hydrophobed textile surface results. Furthermore a method according to the invention manufacturable fabric article is described. Also disclosed is the use of a low-pressure plasma method for preliminary treatment of a textile surface of an article prior to wet chemical hydrophobicization of the textile surface.

Flame resistant textile

WO2019/190871 A3

Publication date: 2019-11-28

Applicant(s): FLACK LEANNE O, LAWRENCE EDWARD F, MILLIKEN & COMPANY

A flame-resistant textile containing a plurality of warp yarns in a warp direction of the textile interwoven with a plurality of weft yarns in the weft direction approximately perpendicular to the warp direction. The warp yarns contain inherent FR polyester yarns having between about 1500 and 3500 ppm of a phosphorous based FR chemistry and the weft yarns contain polyester yarns. The textile contains more weft yarns by weight than warp yarns and wherein the FR textile contain about 1500 ppm or less of the phosphorous based FR chemistry.

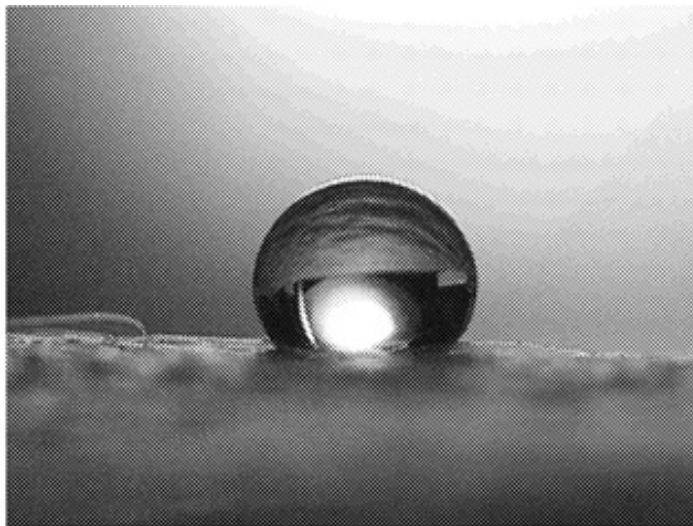
Method for preparing super-hydrophobic textile

WO2019/011278 A1

Publication date: 2019-01-17

Applicant(s): WONG KA WAI, LAM UN TENG, CHEUNG CHI YUEN, TANG CHANGYU, HUANG JIAWEI, WONG KA WAI

A method for preparing a super-hydrophobic textile, comprising: firstly using finishing liquor containing hydrophobicity-modified nano SiO₂ and an organic polymer to perform impregnation and finish on a textile, and then using 10 eV to 20 eV superheated hydrogen molecules to perform bombardment and crosslinking on the resultant, so as to obtain a textile having a super-hydrophobic property. The super-hydrophobic textile prepared by said method has a significantly reduced roll angle while maintaining the water contact angle of the original super-hydrophobic textile; moreover, the textile has significantly improved friction-resistance performance and wash-resistance performance while maintaining the shape, the quality, and the structure of the original textile.



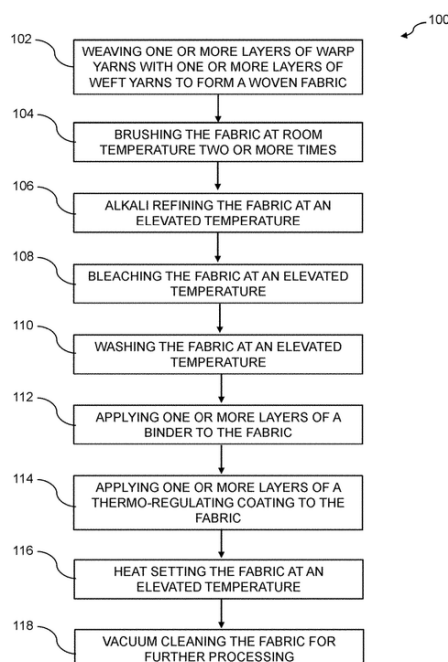
Durable thermoregulating textile structures and methods of manufacture

WO2019/023560 A1

Publication date: 2019-01-31

Applicant(s): MITTAL KHUSHBOO, KANDHASAMY MOHAN MEIYAPPAN, SYSCO GUEST SUPPLY

A textile structure including one or more layers of warp yarns interwoven with one or more layers of weft yarns, a durable thermoregulating coating, and a binder that chemically bonds the durable thermoregulating coating to the textile structure. The warp yarns and/or weft yarns include polyester yarns. A method for manufacturing a textile structure includes weaving one or more layers of warp yarns with one or more layers of weft yarns to form a woven textile structure, brushing the textile structure at least two times, applying a binder to the textile structure, and applying a durable thermoregulating coating to the textile structure such that the binder chemically bonds the durable thermoregulating coating to the textile structure. The method may also include heat setting and curing the textile structure to fix the durable thermoregulating coating permanently onto the textile structure.



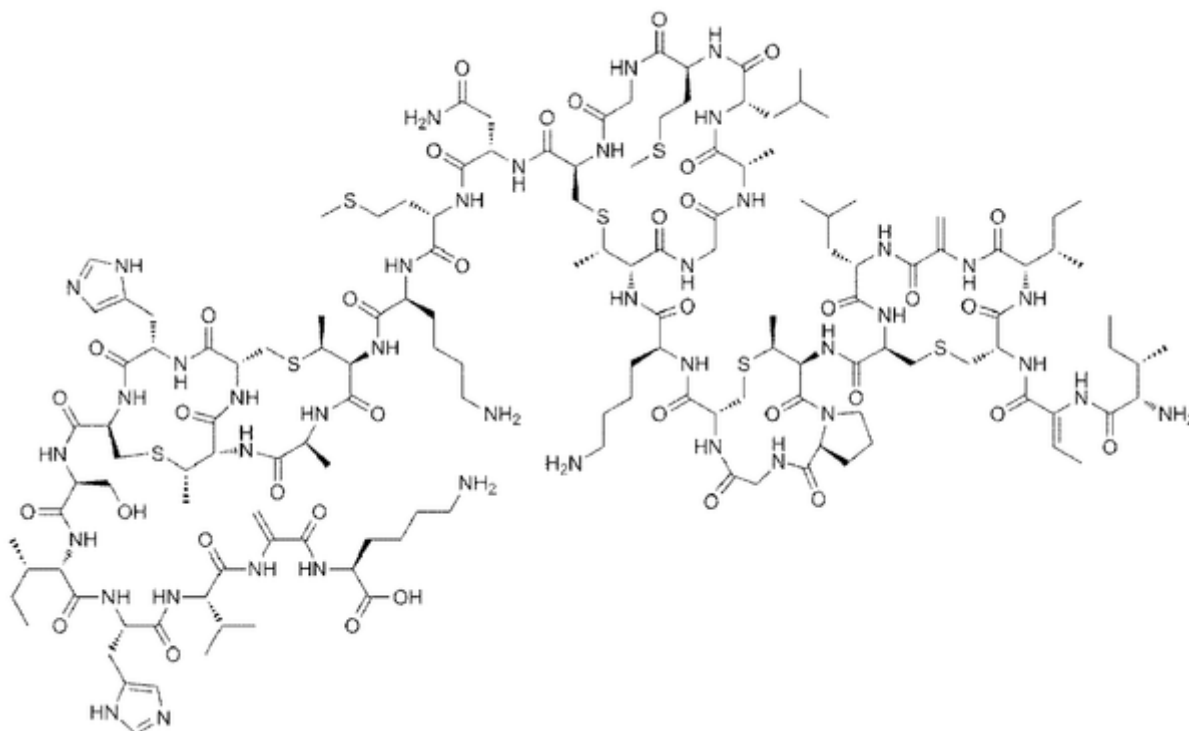
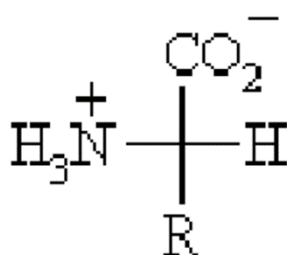
Organic antimicrobial textile

WO2019/180036 A1

Publication date: 2019-09-26

Applicant(s): SWAMY SANJEEV, GÄLLI RENÉ, LIVINGUARD, GREEN IMPACT HOLDING

The present invention relates to a method of rendering a textile antimicrobial by treating the textile in a liquor application process with at least one amino acid and/or at least one amino acid derivative, and to a wash-durable antimicrobial textile obtained by the method.



Powder impregnation of textured fabric surfaces

WO2019/014225 A1

Publication date: 2019-01-17

Applicant(s): REES JOHN JOSEPH MATTHEWS, TSARKEZOS STEPHEN HORACE, ZAFIROGLU DIMITRI, ENGINEERING FLOORS

A textile fabric having increased improved surface properties, variously including surface stability, abrasion resistance, resistance to edge fraying, moisture control, and resistance to fluid penetration is created by introducing a plurality of particles including low-melting particles onto a top surface of the textile fabric. The top surface includes elevated areas, depressed areas, a plurality of surface fibers and gaps among the plurality the plurality of surface fibers. A desired pattern of particle deposition and depth of penetration from the top surface of the plurality of particles into the gaps is established, and heat is applied to the top surface to melt the low-melting particles deposited onto the surface.

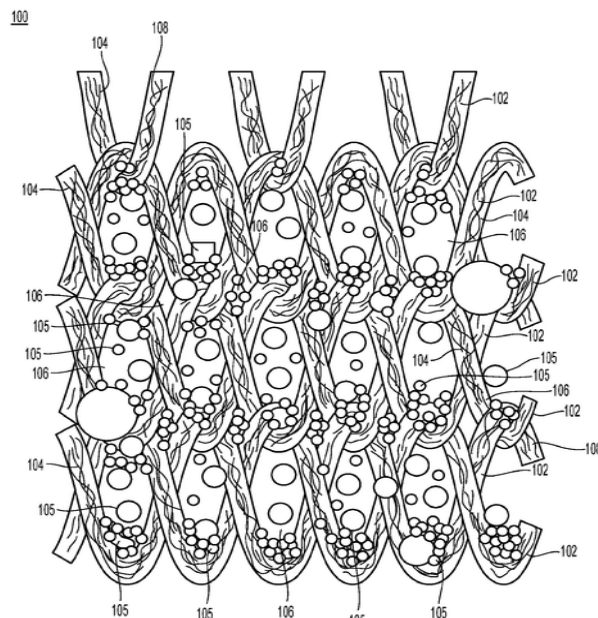


Fig. 1

Integration of solar cells to textiles

WO2019/106234 A8

Publication date: 2019-07-25

Applicant(s): HALME JANNE, RIMPPI ALPI, LEPIKKO SAKARI, WIRTANEN SANDRA,
RONKAINEN EVELIINA, HYÖTYLÄINEN ILONA, LEHTOSALO ANNI, BEIDLER JAANA, LUND
PETER, AARRAS TIINA, AALTO KORKEAKOULUSAEAEETIOE SR

It is an object provide a textile-solar cell structure (100). A textile-solar cell structure (100) comprises a textile layer (101) and a solar cell layer (102). The textile layer (101) may reflect visible light while allowing near-infrared radiation passes through the textile layer (101) to the solar cell layer (102). The textile layer (101) may optically mask the solar cell layer (102), while the solar cell layer (102) can generate an electrical current from the near-infrared radiation. A textile-solar cell structure (100) is provided.

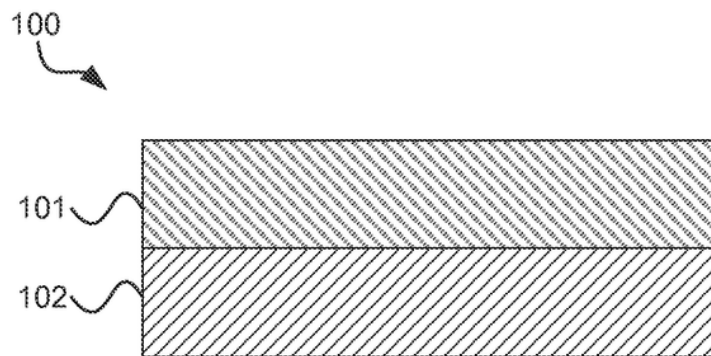


FIG. 1

Carbon fiber textile reinforcing member with anodic metal line and method of repairing and reinforcing concrete structure using the same

US20190136389 A1

Publication date: 2019-05-09

Applicant(s): KIM HYEONG YEOL, RYU GUM SUNG, SEO DONG WOO

YOU YOUNG JUN KOREA INSTITUTE OF CIVIL ENGINEERING & BUILDING TECHNOLOGY

Provided are a carbon fiber textile reinforcing material with an anode metal line which can be repaired and reinforced with a high stiffness and non-corrosive carbon fiber textile by disposing a carbon fiber textile reinforcing material with an anodic metal line functioning as a conductor and a reinforcing material on a deteriorated cross-section of concrete, can maximize repair and reinforcement of a reinforced concrete structure by preventing additional corrosion of a concrete embedded reinforcing bar using a sacrificial anode arranged on the carbon fiber textile, can prevent corrosion of an existing reinforced concrete structure and can be used as a reinforcing material and a corrosion preventing material of a new concrete structure, and a method for repairing and reinforcing a reinforced concrete structure using the same.

