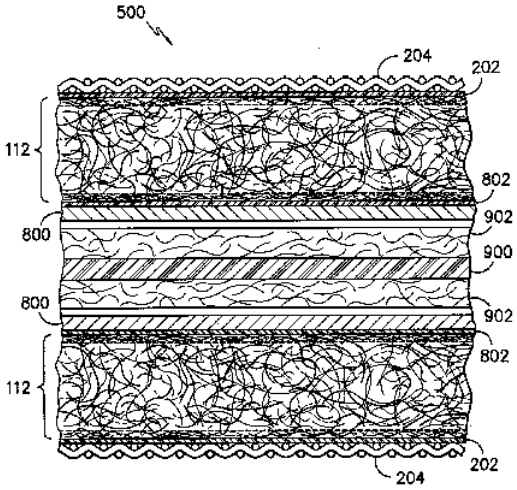
NON-WOVEN COMPOSITE OFFICE PANEL

Patent Number: US7871947
Publication date: 2011-01-18
Applicant(s): Milliken



Abstract
Provided herein is a non-stratified, or homogeneous, non-woven composite having (a) strength-imparting fibers of a relatively high denier and (b) binder fibers of a lower denier that adhere the composite together and that form a smooth, stiff skin on the outer surfaces of the composite. In one instance, the strength-imparting fibers are staple fibers and the binder fibers are bicomponent fibers having a low melt component. In a variation, the composite also contains a small percentage by weight (that is, less than 20%) of flame retardant fibers that impart flame resistant properties to the composite. Preferably, all of the fibers are comprised of the same polymeric material (e.g., polyester), so that the composite is recyclable. The resulting composite exhibits excellent flame retardance, strength, and stiffness, as well as having a smooth surface for attachment of a decorative fabric or other material. A process for manufacturing such composites is also provided.

FLAME RETARDANT COMPOSITION, FLAME-RETARDANT RESIN COMPOSITION AND MOULDED PRODUCT AND FIBRE MADE OF FLAME-RETARDANT RESIN COMPOSITION

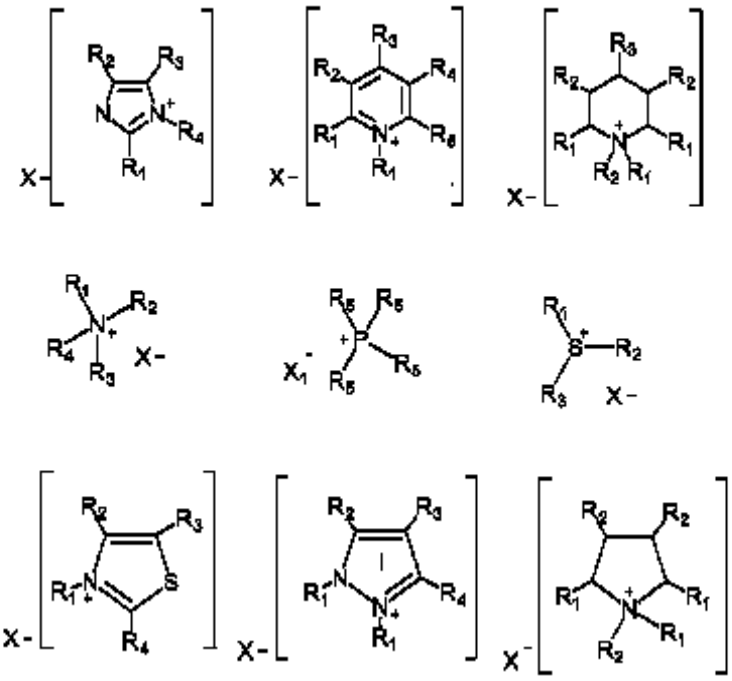
Patent Number: US2010331467
Publication date: 2010-12-30
Applicant(s): Du Pont

Abstract
To provide a halogen-free flame retardant composition containing no antimony, phosphorus and phosphorus compounds at all, a non-halogen flame-retardant resin composition of environmental type ideal for disaster prevention made of the flame retardant composition, which causes little carbon monoxide (CO) during combustion while having high flame retardance, and molded products, electric wires, cables, fiber or fiber post-processed products made of the resin composition. The flame retardant composition comprises a mixture of (A) a resin having an average particle diameter of not more than 1000 mum selected from wholly aromatic polyamide, polyimide, polyamideimide, a copolymer of the wholly aromatic polyamide, the polyimide or the polyamideimide or a mixture of the above mentioned polymers and (B) a metal hydrate. The flame-retardant resin composition contains 50 to 200 parts by mass of the flame retardant composition to 100 parts by mass of a thermoplastic resin or a thermosetting resin.

IONIC LIQUID FLAME RETARDANTS

Patent Number: US2011039467
Publication date: 2011-03-31
Applicant(s): H&C Chemical

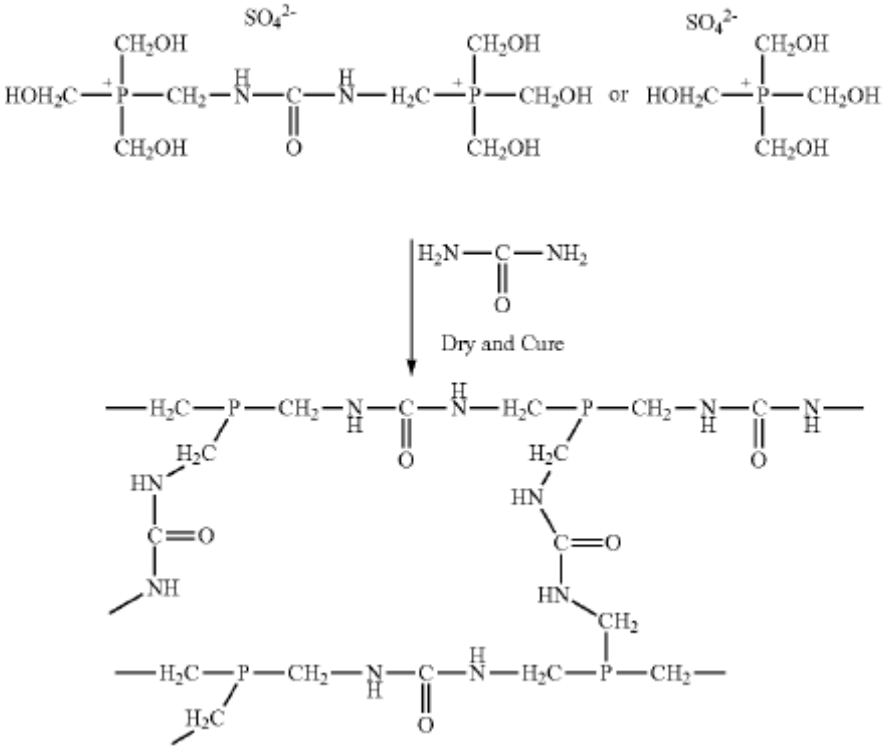
Abstract
The present invention relates to the use of ionic liquids as flame retardants. The compounds of the invention may be used as flame retardants in various materials without causing damage to the environment and or health of humans or animals. Ionic liquid flame retardants maybe applied alone or in combination with traditional flame retardants. Ionic liquid flame retardants can be applied to finish textile, plastic, leather, paper, rubber, or as wild fire flame retardants.



FLAME RESISTANT TEXTILE

Patent Number: US2011092119
Publication date: 2011-04-21
Applicant(s): Milliken

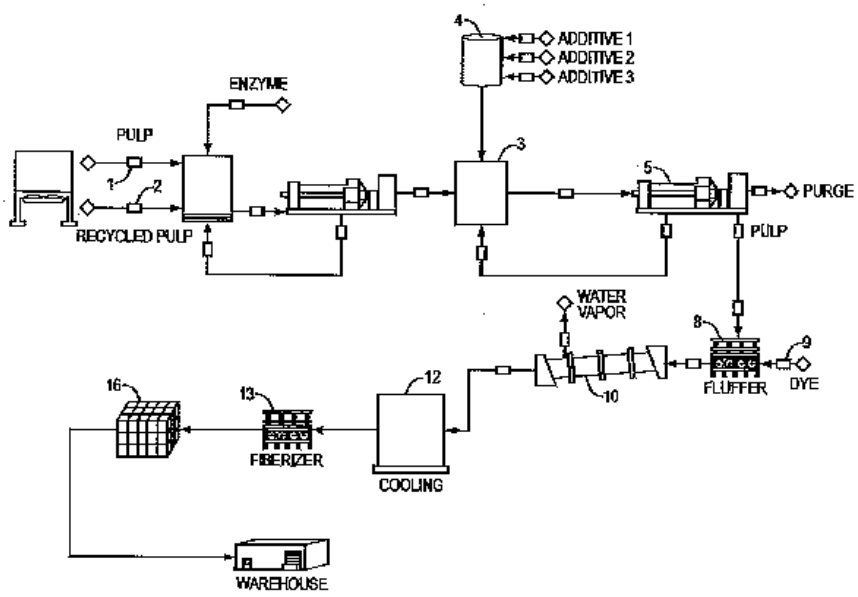
Abstract
A flame resistant textile is provided. The textile is a sateen weave fabric containing cellulosic fibers, where the sateen weave fabric has a thickness of at least 19.5 mils, a thickness of at least 25 mils after 3 home washes at 120deg. F., an air permeability of at least 60 cfm, and a weight of less than about 7 oz/yd2. The sateen weave fabric also contains a treatment, where the treatment contains a tetramethylhydroxy phosphonium salt or its condensate and chemical selected from the group consisting of urea, guanidines, guanyl urea, glycoluril, and polyamines. When the sateen weave fabric to which the treatment has been applied has been heat-cured and oxidized at least a portion of the cellulosic fibers have a pentavalent phosphate compound polymerized therein. The method for producing the flame resistant textile is also provided.



METHOD FOR MAKING FIRE RETARDANT MATERIALS AND RELATED PRODUCTS

Patent Number: US2011117354
Publication date: 2011-05-19
Applicant(s): University of Maine

Abstract
A method for making fire retardant material including fire retardant cellulosic insulation. The method includes an arrangement for adding one or more feedstocks and a fire retardancy chemical compound to a common blend tank prior to feedstock drying. The one or more feedstocks may include at least one virgin pulp stock feed and at least one recycled material stock feed. The amount and type of both the virgin feedstock and the recycled material feedstock is selectable. Old newsprint (ONP) may be one type of recycled material feedstock. Another suitable type of recycled material feedstock is old corrugated containers (OCC). The method further includes retaining the fiber feedstock and the chemical compound together for enough time to ensure adherence or impregnations of enough of the chemical to the fibers after the drying process. Fluffing or fiberizing of the treated fibers may be accomplished under less severe conditions than ordinarily employed when making conventional cellulose insulation.



FIRE-RETARDANT POLYAMIDE CAST ITEM INCLUDING AN INTUMESCENT COATING

Patent Number: WO201145426
Publication date: 2011-04-21
Applicant(s): Rhodia

Abstract
The present invention relates to fire-retardant polyamide cast items including an intumescent coating. Said items, having excellent fire-retardant properties, include at least one fire-retardant system in the polyamide matrix and have an intumescent coating on at least one of the surfaces of said cast items.

FLAME-RETARDANT LYOCELL FIBERS AND USE THEREOF IN FLAME BARRIERS

Patent Number: WO201145673
Publication date: 2011-04-21
Applicant(s): Lenzing

Abstract
The present invention relates to flame-retardant Lyocell fibers which include incorporated inorganic additives which are particularly suited for use in flame barriers for articles of manufacture, such as mattresses and upholstered furniture applications.

Fig. 1: Mattress panel in order from top to bottom