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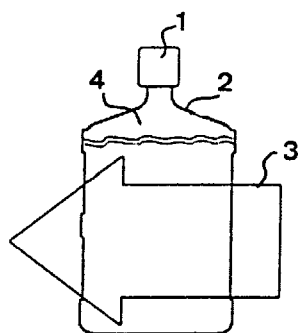
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(54) Title: DISINFECTION THROUGH PACKAGING



of the present invention eliminates the need to transfer the liquid or gas, or solids, or combination through a plurality of stages, or through cumbersome distribution systems requiring substantial attention to bio-compatibility, and biological, and chemical cleanliness and purity of origin of components therein (in the packaging). A predetermined transparent portion of the package is used as a wave guide of diffuser for light radiation.

(57) Abstract: Method and system for disinfection and sterilization through packaging (DTP) are disclosed. The method and system are useful for the treatment of solids, liquids, gases without damaging said packaging, or their content using high peak power pulsed radiation unit having a high intensity source of light. Said method and system are especially beneficial for disinfecting water-based packaged products, and for granting biosecurity to modern agro-food production lines, biomedical preparation processes such as used for the production of vaccination, and for the production through of opto-probiotic or OPB compounds for the enhancement of the human immune system (acquired immune system, or MHC type I, II, III). The methodology of the present invention is especially beneficial for agro-food production, for biomedical fields, and for bottled water or flavored water and beverages. The present invention facilitates the disinfection or photo-treatment of liquids and gases after they have been filled into the packaging, and the packaging is closed already, or the packaging will be closed prior or after treatment. The methodology