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(71) Applicant: COBE LABORATORIES, INC. [US/US]; Patent Dept., 1201 Oak Street, Lakewood, CO 80215 (US).

(72) Inventors: GOODRICH, Raymond, Paul, Jr.; 3500 E. Kentucky Avenue, Denver, CO 80209 (US). CORBIN, Frank, III; 9703 W. Arlington Ave, Littleton, CO 80123 (US). WOOD, Edward, C., Jr.; 13062 West LaSalle Circle, Lakewood, CO 80228 (US). HLAVINKA, Dennis; 7365 N. Salvia Court, Golden, CO 80419 (US).

(74) Agent: O'CONNOR, Edna, M.; Patent Dept., 1201 Oak Street, Lakewood, CO 80215 (US).

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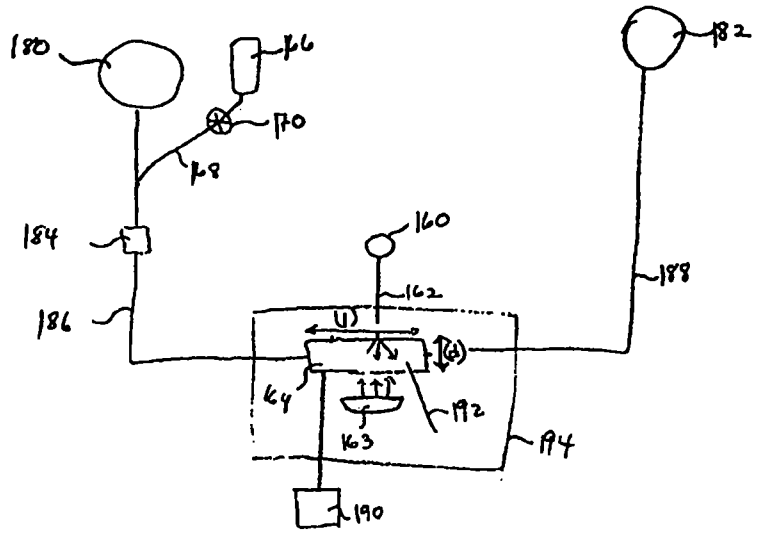
(54) Title: METHOD AND APPARATUS FOR INACTIVATION OF BIOLOGICAL CONTAMINANTS USING PHOTOSENSITIZERS



(57) Abstract

Methods and apparatuses are provided for inactivation of microorganisms in fluids or on surfaces. Preferably the fluids contain blood or blood products and comprise biologically active proteins. Preferred methods include the steps of adding an effective, non-toxic amount of an endogenous photosensitizer to a fluid and exposing the fluid to photoradiation sufficient to activate the endogenous photosensitizer whereby microorganisms are inactivated. Other fluids, including juices, water and the like, may also be decontaminated by these methods as may surfaces of foods, animal carcasses, wounds, food preparation surfaces and bathing and washing vessel surfaces. Alloxazines and K– and L– vitamins are among the preferred photosensitizers. Systems and apparatuses for flow–through and batch processes are also provided for decontamination of such fluids using photosensitizers.

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