

Blood electrification. Patent 5139684, granted Aug 18 1992 (filed Nov 16 1990)

Electrically conductive method and systems for treatment of blood and other body fluids and/or synthetic fluids with electric forces

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Abstract:

A new process and system for treatment of blood and/or other body fluids and/or synthetic fluids from a donor to a recipient or storage receptacle or in a recycling system using novel electrically conductive treatment vessels for treating blood and/or other body fluids and/or synthetic fluids with electric field forces of appropriate electric field strength to provide electric current flow through the blood or other body fluids at a magnitude that is biologically compatible but is sufficient to render the bacteria, virus, and/or fungus ineffective to infect normally healthy cells while maintaining the biological usefulness of the blood or other fluids. For this purpose the low voltage electric potentials applied to the treatment vessel should be of the order of from about 0.2 to 12 volts and should produce current flow densities in the blood or other fluids of from one microampere per square millimeter of electrode area exposed to the fluid being treated to about two milliamperes per square millimeter. Treatment time within this range of parameters may range for a period of time from about one minute to about 12 minutes.

U.S. References Cited: 15 patents: #'s 5049252, 3994799, 4473449, 5133932, 2490730, 3692648, 3753886, 3878564, 3965008, 4616640, 4770167, 4932421, 5058065, 5133932, 592735, 672231

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