PHOTOACTIVATION LIGHT ARRAY

ABSTRACT

Light arrays for use in systems for separating and irradiating blood are disclosed. In accordance with the present invention, the light array has one or more bulbs with electrical connecting leads and first and second support members connected to the bulbs. The second support member preferably includes a connector for receiving the electrical leads. The support members preferably define an end surface and an interior surface, wherein the support members are disposed adjacent the bulbs so the end surfaces are opposed to define a channel, providing a space where tubing carrying blood or other fluids can be disposed without interfering with the array. The bulbs are most preferably attached to the support members using flexible self-locking straps, and in embodiments using two or more bulbs, the bulbs are also preferably held together by one or more straps. Improved mounting systems for connecting the array to the instrument by one or more spring mounts are also disclosed. In certain preferred embodiments, one of the support members is a circuit board and includes a microcircuit for controlling the operation of the array using a clock/timer circuit for determining a total time of activation for the array, whereby upon reaching a predetermined value of the total time of activation, the clock/timer circuit disables the light array. Thus, methods of controlling the output of an array of bulbs are also disclosed.

(Figure 1)