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- [54] **SYSTEM AND METHOD FOR IN-LINE HEATING OF MEDICAL FLUID**
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[57] ABSTRACT

The heating of blood or other medical fluids supplied to a patient is provided by a system and method of feedback control. The temperature of the blood is sensed by receiving infrared energy from the medical fluid as it flows within a sterile and disposable tube from a fluid source to the patient. Feedback control stabilizes the temperature at a desired value. A second sensor may optionally be used to determine if the fluid is too hot within the microwave device itself. The disposable tube has at least one window or thin membrane portion which allows infrared radiation to pass therethrough in order to be sensed by the sensor. One arrangement of the present invention uses a microprocessor with adaptive control to provide precise and accurate control of the temperature of the medical fluid.

3 Claims, 5 Drawing Sheets

