

마이크로컨트롤러를 이용한 창상 치유기의 특성 평가

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Analysis of Characteristic of Wound Therapy Apparatus using μ -Controller

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Abstract : We developed the light medical therapy apparatus for external injury cure using a μ -controller. This equipment was fabricated by using a high brightness LEDs and a ATmega 128, and designed to enable us to control irradiation timer, intensity and reservation. Especially, to control the light irradiation frequency, and to control the change of output value, TLC5941 was used. Control stage is divided into 4 step by program. Consequently, the current value could be controlled by the change of level in Continue Wave(CW) and the output of a high brightness LEDs could be controlled, stage by stage. In this paper, the designed device was used to find out how a high brightness LEDs light source affects the skin wound of a small animal. In result, compared with none light irradiation animal, the lower incidence of inflammation and faster recovery was shown in light irradiation animal.

Key Words : μ -Controller, Light Emitting Diode, Continue Wave, RAT