

[Title of Invention] LIGHTING SYSTEM FOR PLANT CULTIVATION

[Document Name] Abstract

The lighting system for plant cultivation (9) according to the present invention is configured to be capable of switching between an intermittent lighting mode and a continuous lighting mode. The intermittent lighting mode is a mode in which a light source emits light with a lighting cycle comprising a light period of turning on the light source for a predetermined time period and a dark period of turning off the light source for a predetermined time period. The continuous lighting mode is a mode in which the light source continuously emits light. In another aspect, the lighting system for plant cultivation (9) comprises a light source (3), a light source driving unit (2) that drives the light source (3), and a control unit (1) that transmits a pulse signal to the light source driving unit (2). The control unit (1) comprises a first pulse generating unit (11) that generates a first pulse signal (S_1) of a predetermined frequency, a second pulse generating unit (12) that generates a second pulse signal (S_2) of a frequency different from the predetermined frequency, and a pulse signal selecting unit (13) that selects any one of the first pulse signal (S_1) and the second pulse signal (S_2) to transmit the selected one to the light source driving unit (2). The light source driving unit (3) includes a frequency determining unit (21) that determines whether the frequency of the pulse signal received from the control unit (1) is the frequency of the first pulse signal (S_1) or the frequency of the second pulse signal (S_2), a first driving unit (23) that, when receiving the first pulse signal (S_1) from the control unit (1), converts the first pulse signal (S_1) to a constant current output to drive the light source (3), and a second driving unit (24, 25) that, when receiving the second pulse signal (S_2) from the control unit (1), outputs a pulse with an original pulse

waveform of the second pulse signal (S_2) to drive the light source (3).

Fig.1