

ABSTRACT

A substrate processing device capable of heating a substrate in an aspect suitable for accurate temperature measurement is provided. A heating unit 18 heats a substrate 11 by irradiating the substrate 11 with light from an LED of a light source unit 34. The LED outputs light of a single wavelength having a peak wavelength in a wavelength range that is not transmitted through the substrate 11. A radiation thermometer provided in an LED unit 37 measures a temperature of the substrate 11 by detecting light in a wavelength range that does not include the wavelength of the light output by the LED. A light emission control unit 35 increases or decreases the intensity of light output by each LED based on the temperature of the substrate 11 measured by the radiation thermometer.