

ABSTRACT

Title of Invention: LIGHT DETECTION DEVICE AND SIGNAL PROCESSING METHOD

A light detection device 500 includes a replaceable capillary array 501 where a plurality of types of light emitters emit light therein, an optical sensor 504 having a plurality of detection channels for detecting the light emitted from the plurality of types of light emitters in a plurality of wavelength bands, respectively, an optical fiber array 510 for fixing an incident position of the light emitted from the plurality of types of light emitters on the optical sensor 504, and a computer 550. The computer 550 includes crosstalk information therein, performs, using the crosstalk information, a calculation on an output from the optical sensor 504 corresponding to a plurality of light emission points where the plurality of types of light emitters emit light and a plurality of wavelength bands (of the respective light emission points) to reduce crosstalk between the detection channels of the optical sensor 504 and derive a concentration ratio or a signal amount ratio of each of the plurality of types of light emitters for each of a plurality of capillaries, and performs the calculation using the crosstalk information even when the capillary array 501 is replaced with another one.

Figure 5