

METHOD AND DEVICE FOR SIGNAL COLLECTION

ABSTRACT

A method for performing signal collection on fluorescence emitted by an object to be subjected to detection in a sample, and a device for signal collection. The method for performing signal collection on fluorescence emitted by an object to be subjected to detection in a sample comprises the following steps: performing photoelectric detection on fluorescence (205) which is emitted by an object (203) to be subjected to detection in a sample (202), so as to generate an electrical signal; integrating the electrical signal; collecting the integrated electrical signal; and in response to a trigger indication (512), releasing, within a time period, more than 90% of charges which are accumulated in a charge integrator (210) used for integrating the electrical signal, wherein the time period is less than 15% of a half-peak full width of a time-domain waveform (B) that reflects the light intensity of the fluorescence. By means of releasing most of the accumulated charges in a timely manner within a short time during the process of integrating an electrical signal which is generated during fluorescence detection, the problem of the dynamic range of a fluorescence detector being insufficient is effectively solved, such that the dynamic range of the fluorescence detector can be expanded.

Fig. 10