

ABSTRACT

Disclosed herein is a fluorescence detecting apparatus including an excitation light applying section configured to apply excitation light to a protective film containing an absorbing agent, the excitation light having an absorption wavelength to the absorbing agent contained in the protective film, a photomultiplier tube for detecting fluorescence emitted from the absorbing agent due to the absorption of the excitation light, a fluorescence passing filter for removing light having wavelengths other than the wavelength of the fluorescence emitted from the absorbing agent, and a reflecting mirror having a reflecting surface for reflecting the fluorescence emitted from the protective film toward the photomultiplier tube. This reflecting surface is formed by a part of a curved surface forming a spheroid having first and second foci. The first focus is positioned at a target area of the protective film where the excitation light is applied, and the second focus is positioned at a light detecting element included in the photomultiplier tube.

[Figure 5]