effects. Only electromagnetic radiation emitted (non-reflected) from the sample may reach the detector.

According to a further modified embodiment, a further beam splitter can also be used as a further optical component, preferably a second dichroic splitter beam configured in the way described above. The functionality of the dichroic layer (position of the edge) of the second beam splitter can, of course, be configured differently compared to that of the first beam splitter. Thus, two of these novel beam splitter cubes are assembled. In the second beam splitter cube, for example, the fluorescence radiation emitted by the sample is then split in two wavelengths.

The arrangement according to the invention is preferably used for the measurement of radiation occurring upon excitation of fluorescent samples. However, there is no limitation to fluorescence measurements.

According to an aspect, there is provided an arrangement for examining a sample which can be excited by means of electromagnetic radiation, comprising: - a first dichroic beam splitter comprising a first and a second prism which are connected to one another on the base surfaces thereof, and a dichroic layer arranged between the base surfaces of the two prisms, wherein an entry surface of the first prism encloses an angle (β) in the range from 10° to < 40° with the dichroic layer; - a light source for providing the electromagnetic radiation suitable for excitation of the sample, wherein the radiation is coupled into the entry surface of the first prism and wherein a part of the radiation is connected to the light source is reflected on the dichroic layer in the direction of the sample, which is positioned downstream of an exit surface of the first prism; - a detector for detecting electromagnetic radiation emitted by the sample, passed through the beam splitter and leaving the latter on a measurement surface.

According to another aspect, there is provided a dichroic beam splitter, comprising a first and a second prism which are connected to one another on the base surfaces thereof, and a dichroic layer arranged between the base surfaces of the two prisms, wherein an entry surface of the first prism, on which a radiation is incident, encloses an angle (β) in the range from 10° to < 40° with the dichroic layer wherein a reflected partial radiation is reflected on the dichroic layer in the direction of an exit surface of the first prism and a transmitted partial radiation is transmitted through the dichroic layer.

Further advantages and details of the invention will become apparent from the following description of preferred embodiments with reference to the accompanying drawing.

Fig. 1 shows an arrangement according to the invention for examining a sample which can be excited by means of electromagnetic radiation;

Fig. 2 shows a modified embodiment of the arrangement suitable for measuring glucose concentrations;

Fig. 3 shows details of a modified embodiment of the arrangement for examining a sample which can be excited by means of electromagnetic radiation.