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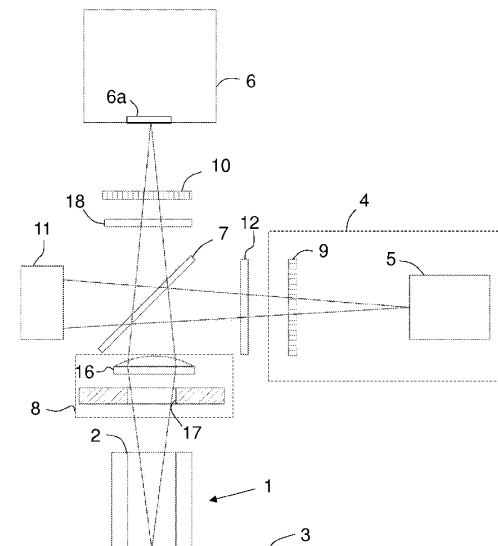


FIG. 1

(57) Abstract: The optical reader for analyzing biological samples comprises a reading plane (3) for receiving a microplate (1), an illuminating arrangement (4) configured to illuminate samples in the wells (2) of the microplate (1), an imaging device (6) arranged to receive light from the microplate (1), a beam splitter (7), which is arranged to direct light from the illuminating arrangement (4) towards the reading plane (3) and to direct light received from the microplate (1) to the imaging device (6), and a lens system (8) arranged between the beam splitter (7) and the reading plane (3) to focus the light received from the illuminating arrangement (4) to a sample and to focus an image of the sample to the imaging device (6). The optical reader is configured to transmit from the illuminating arrangement (4) to the lens system (8) only light having a specific polarization, and the optical reader comprises a polarizer (10, 19) that is arranged between the lens system (8) and the imaging device (6) and configured to block polarized light reflected from the surfaces of the lens system (8).

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