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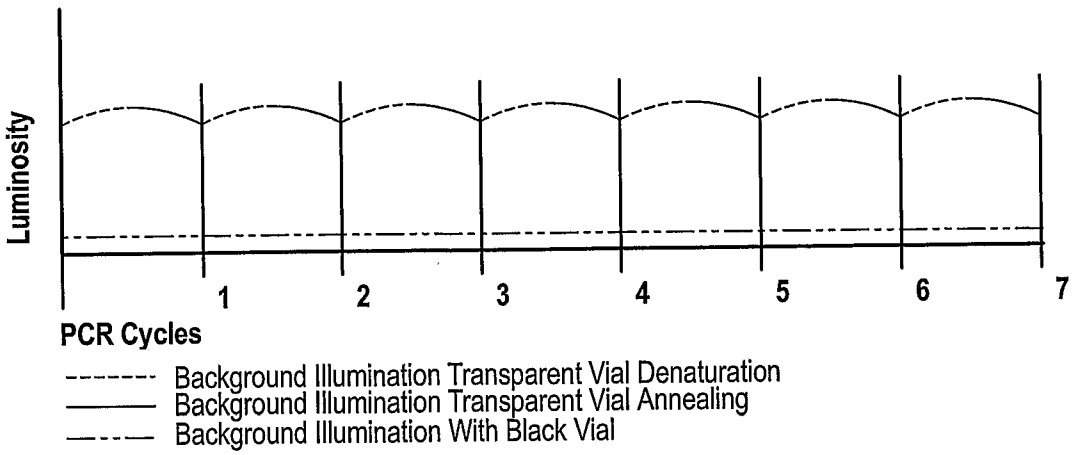
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(54) Title: FLUORESCENCE DETECTION SYSTEM



(57) Abstract: Apparatus and methods for exciting and detecting fluorescence in samples are disclosed. In one embodiment, a sample holder for holding a plurality of samples is provided together with an optical manifold having an excitation source, a photo receiver, or both, for each of the plurality of samples. In another embodiment, the optical manifold contains only the excitation source or a photo receiver, and the other is associated with the sample holder. This system permits for rapid excitation and measurement of fluorescence without the use of moving parts and without any optomechanical or electronic disturbance. It exhibits an exceptional signal to noise ratio, which permits it to differentiate between very low level differences in fluorescence.

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