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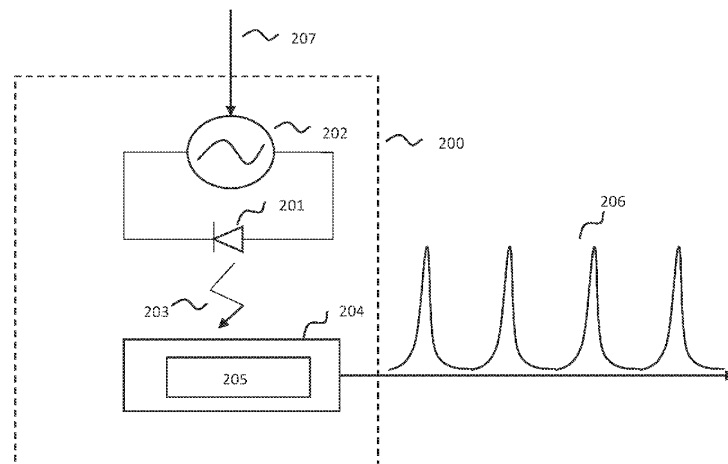
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(54) Title: AMPLITUDE-MODULATED LASER

FIG. 2



(57) Abstract: Systems and methods are described for producing an amplitude-modulated laser pulse train. The laser pulse train can be used to cause fluorescence in materials at which the pulse trains are directed. The parameters of the laser pulse train are selected to increase fluorescence relative to a constant-amplitude laser pulse train. The amplitude-modulated laser pulse trains produced using the teachings of this invention can be used to enable detection of specific molecules in applications such as gene or protein sequencing.

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