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(54) Title: SWEPT FREQUENCY FLUOROMETER

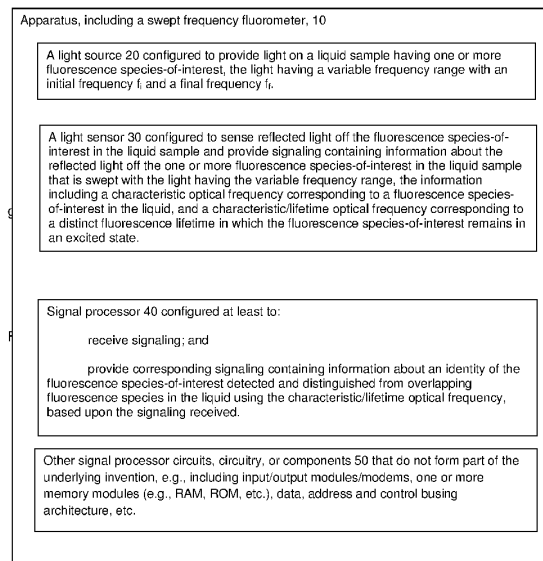


Figure 4: Swept frequency fluorometer 10

(57) Abstract: A swept frequency fluorometer having a signal processor or processing module configured to: receive signaling containing information about reflected light off one or more fluorescence species-of-interest in a liquid sample that is swept with light having a variable frequency range, the information including a characteristic optical frequency corresponding to a fluorescence species-of-interest in the liquid, and a characteristic/lifetime optical frequency corresponding to a distinct fluorescence lifetime in which the fluorescence species-of-interest remains in an excited state; and provide corresponding signaling containing information about an identity of the fluorescence species-of-interest detected and distinguished from overlapping fluorescence species in the liquid using the characteristic/lifetime optical frequency, based upon the signaling received

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