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(54) **Title:** MULTIPLEXED FLUORESCENT DETECTION OF ANALYTES

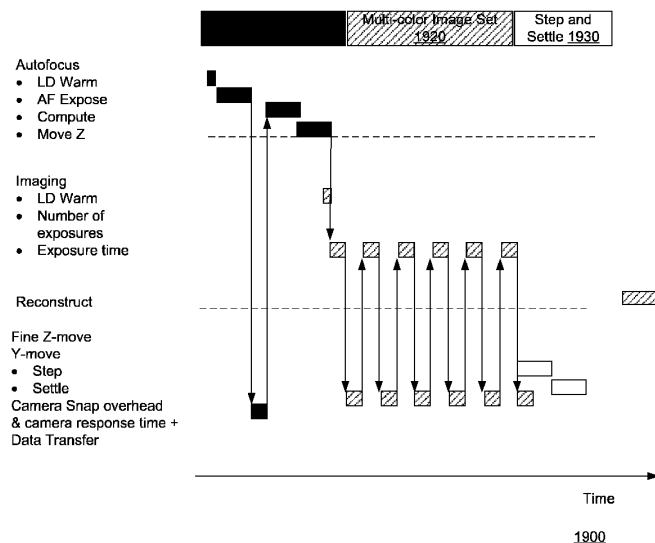


FIG. 19

(57) **Abstract:** In a first aspect, a method includes: providing a sample, the sample including a first nucleotide and a second nucleotide; contacting the sample with a first fluorescent dye and a second fluorescent dye, the first fluorescent dye emitting first emitted light within a first wavelength band responsive to a first excitation illumination light, the second fluorescent dye emitting second emitted light within a second wavelength band responsive to a second excitation illumination light; simultaneously collecting, using one or more image detectors, multiplexed fluorescent light comprising the first emitted light and the second emitted light, the first emitted light being a first color channel corresponding to the first wavelength band and the second emitted light being a second color channel corresponding to the second wavelength band; and identifying the first nucleotide based on the first wavelength band of the first color channel and the second nucleotide based on the second wavelength band of the second color channel.

[Continued on next page]

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