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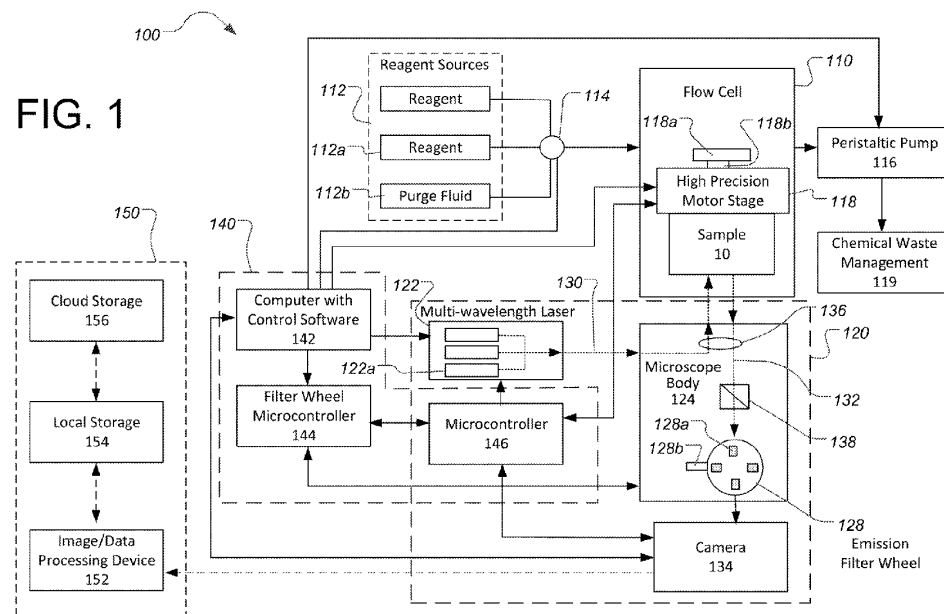
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(54) Title: SYSTEM AND METHOD FOR ACQUISITION AND PROCESSING OF MULTIPLEXED FLUORESCENCE IN-SITU
HYBRIDIZATION IMAGES

FIG. 1



(57) Abstract: In a fluorescent in-situ hybridization imaging system performs, as nested loops, the following: (1) a valve sequentially couples a flow cell to a plurality of different reagent sources to expose the sample to a plurality of different reagents, (2) for each reagent of the plurality of different reagents, a motor sequentially positions the fluorescence microscope relative to sample at a plurality of different fields of view, (3) for each field of view of the plurality of different fields of view, a variable frequency excitation light source sequentially emits a plurality of different wavelengths, (4) for each wavelength of the plurality of different wavelengths, an actuator sequentially positions the fluorescence microscope relative to sample at a plurality of different vertical heights, and (5) for each vertical height of the plurality of different vertical heights, an image is obtained.

[Continued on next page]

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