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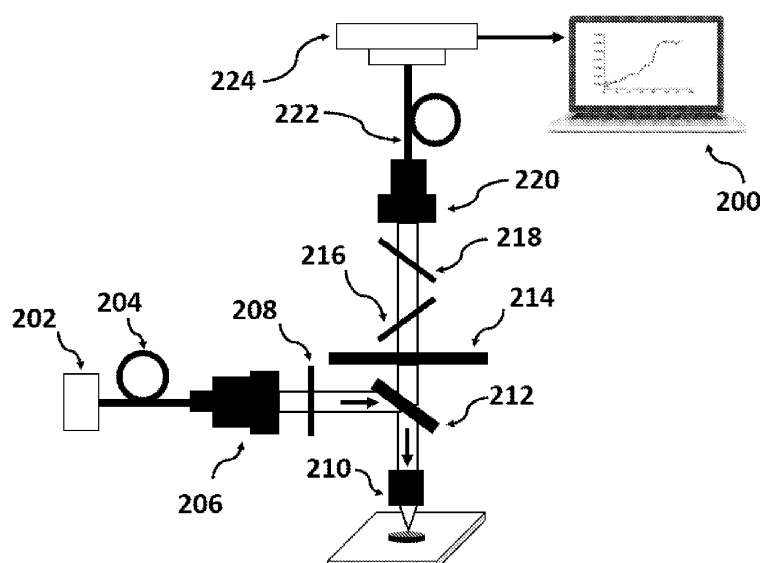
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(54) Title: RAPID DIAGNOSTICS FOR ANALYTE/BIOMARKER DETECTION BY RAMAN TECHNOLOGY WITH NON-SPECTROMETER RAMAN MEASUREMENT SYSTEM

FIG. 2A



(57) Abstract: Herein disclosed is a portable device which detects a Raman signal from an analyte of interest contained in or suspected to contain in a sample. The portable device includes a laser source in optical communication with a dichroic mirror, an objective lens optically positioned to consolidate the laser from the laser source to the sample, (i) a pair of rotatable filters in optical communication with the dichroic mirror and an optical transmission module or (ii) a first band-pass filter in optical communication with the dichroic mirror and an optical transmission module, and a detector optically positioned to receive and detect a Raman signal produced from the laser incident on the analyte of interest. The dichroic mirror directs the laser from the laser source to the sample through the objective lens and transmits any Raman signal from the sample toward the detector. The dichroic mirror is optically pervious to any Raman signal

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having a wavelength longer than the wavelength of the laser from the laser source. The detector is absent of a spectrometer and remains operable to detect the Raman signal.