

Search query (9): [SP]: 1. a device comprising: a detector surface configured for supporting biological or chemical samples a sensor array comprising light sensors and light guides wherein the light guides receive excitation light and emissions signal light from the detector surface, wherein the light guides extend toward respective light sensors of the sensor array and comprise filter material, and wherein the filter material comprises a metal complex dye.2. the device of claim 1, wherein the filter material comprises metal complex dye suspended in a polymer binder matrix.3. the device of claim 1, wherein the filter material comprises a homogeneous matrix of metal complex dye and a polymer binder and wherein the homogeneous matrix comprises a weight concentration ratio of metal complex dye to polymer binder in the range of from about 70:30 to about 90:10.4. the device of claim 1, wherein the detector surface includes a reaction recess for supporting a sample, wherein the reaction recess comprises an index of refraction and dimension to cancel background radiation in a detection band of the sensor array.5. the device of claim 1, wherein the metal complex dye comprises a transition metal complex dye.6. the device of claim 1, wherein the metal complex dye comprises a transition metal and a dye and wherein the transition metal has an absorption spectral profile overlapping a fluorescence emissions spectral profile of the dye.7. the device of claim 1, wherein the metal complex dye reduces an auto-fluorescence of the filter material.8. the device of claim 1, wherein the filter material comprises a counter ion associated to the metal complex dye.9. the device of claim 8, wherein the counter ion comprises an alkyl amine having at least one hydrocarbon group of at least four carbon atoms.10. a method comprising: depositing filter material within guide cavities of a guide cavity array that are aligned with and disposed above respective light sensors of a light sensor array, wherein the filter material comprises dye having a photon emission quencher and fabricating a structure defining a detector surface for supporting biological or chemical samples above cavities of the guide cavity array and light sensors of the light sensor array.11. the method of claim 10, wherein the depositing filter material comprises using chemical vapor deposition, and wherein subsequent to the depositing, the deposited filter material is subject to processing using one or more of etching and planarizing.12. the method of claim 10, wherein the filter material comprises a homogeneous matrix of metal complex dye and polymer binder.13. the method of claim 10, wherein the filter material comprises a matrix of metal complex dye and polymer binder and wherein a weight concentration of metal complex dye to polymer binder is in the range of from about 70:30 to about 90:10.14. the method of claim 10, wherein the fabricating a structure defining a detector surface comprises forming a reaction recess defined in the detector surface, wherein the forming includes configuring the reaction recess so that based on an index of refraction of the detector surface and a dimensional characteristic of the reaction recess, an induced electromagnetic field radiating from the detector surface cancels background light energy incident on the detector surface in a detection wavelength band of the light sensor array.15. the method of claim 10, wherein the method includes subjecting one or more test sample detectors to testing to determine information relating a dimension of a detector surface to an electromagnetic field cancellation effect and wherein the fabricating the structure defining a detector surface includes dimensioning, using the determined information, a reaction recess of the detector surface to cancel light energy incident on the detector surface in a detection band of the light sensor array.16. the method of claim 10, wherein the filter material comprises a counter ion associated to a metal complex dye comprising the dye.17. the method of claim 16, wherein the counter ion comprises an alkyl amine having at least one hydrocarbon group of at least four carbon atoms.18. a device comprising: a detector surface for supporting biological or chemical samples a sensor array comprising light sensors and light guides wherein light guides receive excitation light and emissions signal light from the detector surface, wherein the light guides extend toward respective light sensors of the sensor array, wherein the detector surface includes a reaction recess, the reaction recess comprising an index of refraction and a dimension sufficient to cancel background light energy incident on the detector surface in a detection band of the sensor array.19. the device of claim 18, wherein the reaction recess comprises an index of refraction and a dimension sufficient to transmit a center wavelength of the excitation light.20. the device of claim 18, wherein the reaction recess comprises an index of refraction and a dimension sufficient to establish a critical wavelength λ_c so that λ_c is within a range of wavelengths of between about λ_a and about λ_b , wherein wavelengths shorter than λ_c are transmitted by the reaction recess and wherein wavelengths longer than λ_c are cancelled by the reaction recess, wherein λ_a is the center wavelength of excitation light and wherein λ_b is the shortest detection band wavelength of the sensor array.

Results: 2

1) Family number: 74950022 (US2019204226 AA)

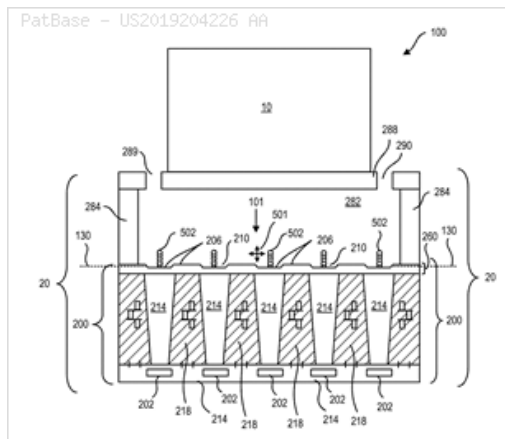
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Title: DETECTOR WITH REDUCED FLUORESCENCE RANGE NOISE

Abstract: There is set forth herein a device comprising structure defining a detector surface configured for supporting biological or chemical substances, and a sensor array comprising light sensors and circuitry to transmit data signals using photons detected by the light sensors. The device can include one or more features for reducing fluorescence range noise in a detection band of the sensor array.

Classifications:

International (IPC 8-9): G01N G01N21/01 G01N21/03 G01N21/05 G01N21/64 G01N33/52 G01N33/53 G02B5/22 H01L27/146
CPC: G01N2021/6471 G01N21/01 G01N21/6402 G01N21/6428 G01N21/6454 G01N21/6486 G01N2201/08 G01N33/53 G02B19/0019 G02B19/0076 G02B5/223 H01L27/14621 H01L27/14625 H01L27/14643 G01N2021/6463



Family:

Publication number	Publication date	Application number	Application date
AU2018397465 AA	20190704	AU20180397465	20181130
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Priority:

US20170611464P 20171228 US20180644804P 20180319 WO2018US63395 20181130
US20180206564 20181130 US20200778935 20200131

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Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JO JP KE KG KH KM KN KP KR KW KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

2) Family number: 74966154 (US2020066684 AA)

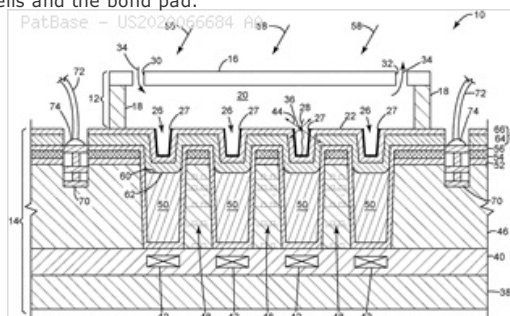
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Title: SENSOR SYSTEM

Abstract: A system includes an image sensor structure and a flow cell. The image sensor structure includes an image layer disposed over a base substrate. A device stack is disposed over the image layer. A bond pad is disposed in the device stack. A passivation stack is disposed over the device stack and the bond pad. An array of nanowells is disposed in a top layer of the passivation stack. A through-silicon via (TSV) is in electrical contact with the bond pad. The TSV extends through the base substrate. A redistribution layer (RDL) is disposed on a bottom surface of the base substrate. The RDL is in electrical contact with the TSV. The flow cell is disposed upon the top layer of the passivation stack to form a flow channel therebetween. The flow channel is disposed over the array of nanowells and the bond pad.

Classifications:

International (IPC 8-9): G01N G01N21/17 G01N21/64 H01L21/3205 H01L21/768 H01L23/00 H01L23/12 H01L23/31 H01L23/48 H01L23/485 H01L23/522 H01L25/065 H01L27/144 H01L27/146
CPC: G01N21/6454 H01L2224/02372 H01L2225/06541 H01L23/3135 H01L23/481 H01L24/29 H01L24/45 H01L24/91 H01L25/0657 H01L23/485 H01L24/06 H01L27/14634 H01L27/14636 H01L27/1469



Family:

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US2020066684 AA	20200227	US20170609554	20171226
WO19132857 A1	20190704	WO2017US68397	20171226

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