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- (71) **Applicant:** **ILLUMINA, INC.** [US/US]; 5200 Illumina Way, San Diego, California 92122 (US).
- (72) **Inventors:** **REZAEI, Mohsen**; 5200 Illumina Way, San Diego, California 92122 (US). **HETHERINGTON, Craig**; 5200 Illumina Way, San Diego, California 92122 (US). **SANGIORGIO, Paul**; 5200 Illumina Way, San Diego, California 92122 (US). **BOZORG-GRAYELI, Tara**;

5200 Illumina Way, San Diego, New York 92122 (US). **CIESLA, Craig**; 5200 Illumina Way, San Diego, California 92122 (US). **EMADI, Arvin**; 5200 Illumina Way, San Diego, New York 92122 (US). **BILLA, Ravi**; 5200 Illumina Way, San Diego, California 92122 (US). **FUNG, Tracy**; 5200 Illumina Way, San Diego, California 92122 (US).

(74) **Agent:** **PEARLMAN, Rachel L.**; Heslin Rothenberg Farley & Mesiti P.C., 5 Columbia Circle, Albany, New York 12203 (US).

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(54) **Title:** SENSOR WITH LIGHT FILTER AND CROSSTALK REDUCTION MEDIUM

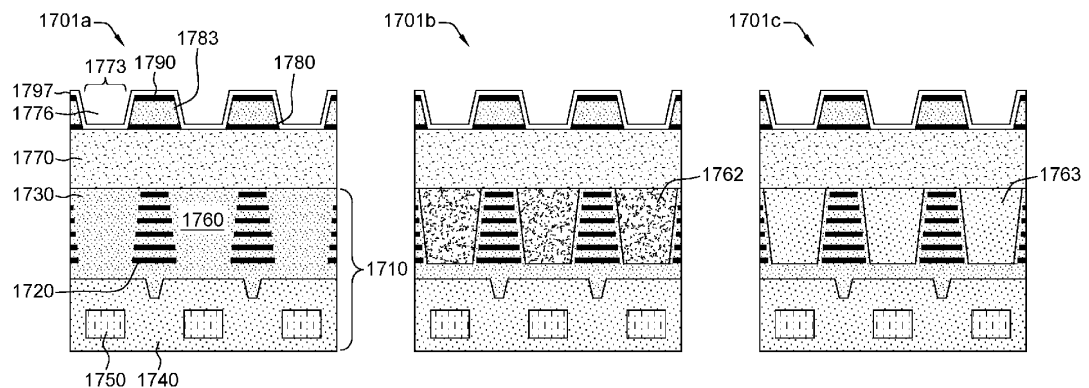


FIG. 17

(57) **Abstract:** Provided herein are various examples of aspects of a biosensor and methods for manufacturing and using aspects of a biosensor. The method of manufacturing may include forming a germanium layer above a surface of an image sensor and forming a dielectric stack above a surface of the germanium layer. The biosensor can be utilized by placing nucleic acid(s) in reaction sites of the biosensor, exposing the reaction sites to light from a light source (*e.g.*, excitation light), receiving emitted light from the reaction sites via the germanium layer, and identifying, based on the emitted light, a composition of the one or more nucleic acids.

[Continued on next page]

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