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(71) Applicant: **PALAMEDRIX, INC.** [US/US]; 11149 North Torrey Pines Road, Suite 220, La Jolla, California 92037 (US).

(72) Inventors: **BOWEN, Shane**; 11149 North Torrey Pines Road, Suite 220, La Jolla, California 92037 (US). **ROTHERMUND, Paul**; 11149 North Torrey Pines Road, Suite 220, La Jolla, California 92037 (US). **GOPINATH, Ashwin**;

11149 North Torrey Pines Road, Suite 220, La Jolla, California 92037 (US).

(74) Agent: **RARIDEN, John M.** et al.; P.O. Box 692289, Houston, Texas 77269 (US).

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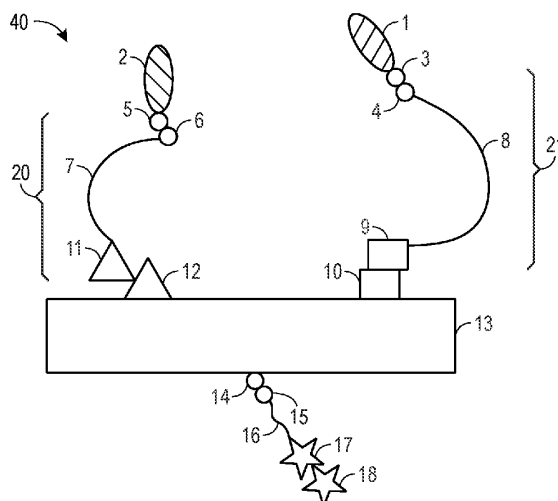


FIG. 1

(57) Abstract: Provided herein are structures and methods for detecting one or more analyte molecules present in a sample. In some embodiments, the one or more analyte molecules are detected using one or more supramolecular structures. In some embodiments, the supramolecular structures are bi-stable, wherein the supramolecular structures shift from an unstable state to a stable state through interaction with one or more analyte molecules from the sample. In some embodiments, the stable state supramolecular structures are configured to provide a signal for analyte molecule detection and quantification.

[Continued on next page]

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