

Title (en)

RESONANT OPTICAL CAVITIES FOR HIGH-SENSITIVITY, HIGH-THROUGHPUT BIOLOGICAL SENSORS AND METHODS

Title (de)

RESONIERENDE OPTISCHE KAVITÄTEN FÜR HOCHSENSITIVE HOCHDURCHSATZ-BIOSENSOREN UND ENTSPRECHENDE VERFAHREN

Title (fr)

CAVITES OPTIQUES RESONNANTES DESTINEES A DES BIODETECTEURS A GRANDE SENSIBILITE ET A HAUT RENDEMENT ET PROCEDES UTILISANT CES BIODETECTEURS

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Application

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Abstract (en)

[origin: WO0140757A2] Biosensors including resonant optical cavities. The resonant optical cavities are shaped so as to generate whispering gallery modes, which increase the quality factors of the cavities and facilitate the detection of analytes in a sample with enhanced sensitivity. The sizes of the resonant optical cavities facilitate their use in biosensors that include arrays of sensing zones. Accordingly, the resonant optical cavities may be used in high-density sensing arrays that can be read in real-time and in parallel. Thus, the resonant optical cavities are useful for detecting small concentrations of samples in real-time and with high throughput. Different embodiments of the biosensors are also disclosed, as are methods for using the biosensors.

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