Title (en)

PIEZOELECTRIC CANTILEVER SENSOR FOR DETECTION OF TARGET ANALYTES

Title (de)

PIEZOELEKTRISCHER CANTILEVERSENSOR ZUM NACHWEIS EINES ZIELANALYTEN

Title (fr)

CAPTEUR EN PORTE-À-FAUX PIÉZOÉLECTRIQUE POUR LA DÉTECTION D'UNE ANALYTE CIBLE

Publication

EP 2032976 A1 20090311 (EN)

Application

EP 07809068 A 20070510

Priority

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- US 74695106 P 20060510
- US 80702006 P 20060711

Abstract (en)

[origin: WO2008020903A2] A method for detection of airborne biological agent using a piezoelectric cantilever sensor that includes a piezoelectric layer and a non-piezoelectric layer. A recognition entity is placed on one or both of the two layers. The antibody that recognizes and binds to the airborne species may be chemically immobilized on the cantilever sensor surface. In one embodiment, the cantilever sensor is attached to a base at only one end. In another embodiment, the sensor includes first and second bases and at least one of the piezoelectric layer and the non-piezoelectric layer is affixed to each of the first and second bases to form a piezoelectric cantilever beam sensor. In this embodiment, resonance is measured via stress on the piezoelectric layer and it has been demonstrated that such sensors are robust and exhibit excellent sensing characteristics in gaseous media with sufficient sensitivity to detect airborne species at relatively low concentrations.

IPC 8 full level

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CPC (source: EP)

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