Title (en)

ALIGNED PARTICLE BASED SENSOR ELEMENTS

Title (de)

AUF IN LINIEN GEBRACHTEN PARTIKELN BASIETER SENSOR

Title (fr)

ELEMENTS DETECTEURS BASES SUR DES PARTICULES ALIGNES

Publication

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Application

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Abstract (en)

[origin: WO0033062A1] The present invention relates to a sensor array for detecting an analyte in a fluid, comprising first and second sensors formed by chemically sensitive resitors, wherein the first sensor comprises a region of aligned conductive material; or where each of the sensors comprises alternating regions of nonconductive regions and aligned conductive regions with each resistor providing an electrical path through both the nonconductive region and the aligned conductive region, while each sensor manifests a different electrical resistance during contact with sample fluids having different analyte concentrations via the monitoring arrangement of having the sensors electrically connected to an electrical measuring apparatus. The aligned conductive particle material is aligned by exposure to either of an electric, magnetic, optical, photo-electric, electromagnetic or mechanical field, which serves to improve signal to noise ratio of vapor sensors allowing Lower Detection Limits for vapors being sensed. Such Lower Detection Limits allow for identification of lower concentrations of hazardous material and is advantageous in medical applications, such as detection of disease states in a patient.

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