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- (54) Title:** CHEMICAL SENSOR AND MANUFACTURING THEREOF

- (57) Abstract:** A smartcard or other media that detects the presence of chemical and/or biological compounds or other items of interest on individuals handling by using chemical-selective devices. These chemical-selective devices can include non-linear (e.g., diode and/or transistor) and/or time non-linear (e.g., controlled resistor) electrical components and can indicate exposure to an item of interest through a change in one or more electrical characteristics. The exposure of the chemical-selective devices to items of interest is stored such that, when the smartcard or other media is presented to a card reader, the detection data can be transmitted to the card reader for appropriate processing by the system.

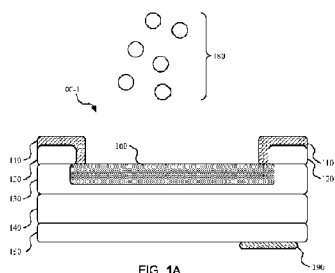


FIG. 1A

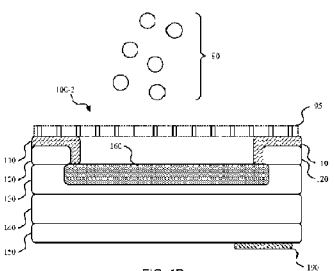
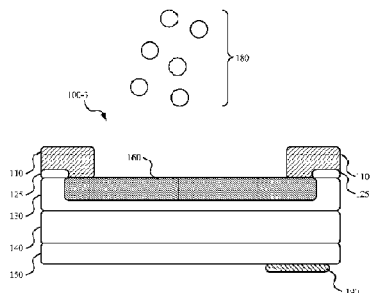


FIG. 1B



FG. 1C



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