ABSTRACT

BIOSENSORS FOR BIOLOGICAL OR CHEMICAL ANALYSIS AND METHODS OF MANUFACTURING THE SAME

Biosensor including a device base having a sensor array of light sensors and a guide array of light guides. The light guides have input regions that are configured to receive excitation light and light emissions generated by biological or chemical substances. The light guides extend into the device base toward corresponding light sensors and have a filter material. The device base includes device circuitry electrically coupled to the light sensors and configured to transmit data signals. The biosensor also includes a shield layer having apertures that are positioned relative to the input regions of corresponding light guides such that the light emissions propagate through the apertures into the corresponding input regions. The shield layer extends between adjacent apertures and is configured to block the excitation light and the light emissions incident on the shield layer between the adjacent apertures.

[Figure 1]