ABSTRACT OF THE DISCLOSURE

A strain sensor and method for fabricating the sensor, wherein the sensor comprises an elastomer layer, a support layer, piezoresistive elements, nonconductive spacer elements, and electrodes. The piezoresistive and spacer elements are deposited on the elastomer layer. The sensor may measure pressure, stretch, or a combination of both, such as in bending. The elastomer support matrix may comprise a flexible, stretchable material and a flexible, substantially non-stretchable material. The spacer elements may be immobilized on a layer comprising the piezoresistive elements. The sensor may also comprise a second piezoresistive layer between the piezoresistive element and a substrate comprising electrodes.

Figure 2