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METHOD OF FABRICATING A SILICON MICROPHONE

ABSTRACT

Condenser microphones are integrated onto silicon substrates to form sensor devices. In a first fabrication process, a complementary metal oxide semiconductor (CMOS) and a sensor are integrated on a single silicon p-substrate. The sensor fabrication process begins after the completion of the CMOS fabrication process. Such process occurs without changes to the characteristics of the already fabricated CMOS circuitry. In a second fabrication process, a sensor is fabricated on a silicon substrate using an n-well, formed in the substrate, as the sensor diaphragm. In a third fabrication process, a sensor is fabricated on a silicon substrate using an epitaxial layer, formed on the substrate, as the sensor diaphragm.

Fig. 1K