

Smart Microchips for Intelligent Sensing

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Silicon smart microchips with CMOS/MEMS technology are realized for Intelligent sensing. In our developed chips, new type sensor chips for bio-medical applications are presented especially here. One is Si microprobe electrode and tube array chips for recording of neurons in the tissue and drug deliver use. The probe array can be fabricated on IC chip, using standard IC process followed by a selective Si probe growth. Another one is pH image sensors successfully fabricated by using the CCD/CMOS image sensor technique, and real time imaging of a chemical reaction and pH distribution was carried out.