A STUDY OF FABRICATING MICRO ARRAY BIO-PROBE DEVICE ON A FLEXIBLE SUBSTRATE

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Abstract

This research provides a micro array bio-probe device[1,2] integrated with an amplifier formed of bottom-gate thin film transistors, which utilizes a micro-electro-mechanical process as well as a semiconductor process to integrate micro array bio-probes and an amplifier formed of bottom-gate thin film transistors on a flexible substrate. As such, the signal obtained by the bio-probes can be amplified nearby to improve the signal-to-noise ratio and impedance matching.

The micro array bio-probes are formed on the flexible substrate such that the present bio-probe device can be disposed to conform to the profile of a living body's portion so as to improve the electrical contact property.