ABSTRACT

ADDRESSABLE CHEM/BIO CHIP ARRAY

An addressable Chem/Bio chip array and test apparatus is disclosed. Addressable bio/chem chips (10) include a plurality of isolated test cells, each addressable by at least two electrodes (16, 18) for measuring electrical characteristics of probe/test molecule interactions. In one embodiment, the test apparatus comprises a substrate, a plurality of pads formed of insoluble material for binding to samples of interest, arranged on said substrate; a plurality of working electrodes, each of said plurality of working electrodes electrically interconnected to first groups of said plurality of pads; a plurality of counter electrodes, each of said plurality of counter electrodes electrically interconnected to second groups of said plurality of pads; wherein each of said pads is interconnected to one of said plurality of working electrodes and one of said plurality of counter electrodes; a measuring device for measuring electrical characteristics at a selected pair of said counter and working electrodes, to analyse an analyte proximate said one of said plurality of pads interconnected with said selected pair of said counter and working electrodes, the test apparatus further comprising at least one inductor interconnected between said measuring device and said pair of said working and counter electrodes.

Figure 1