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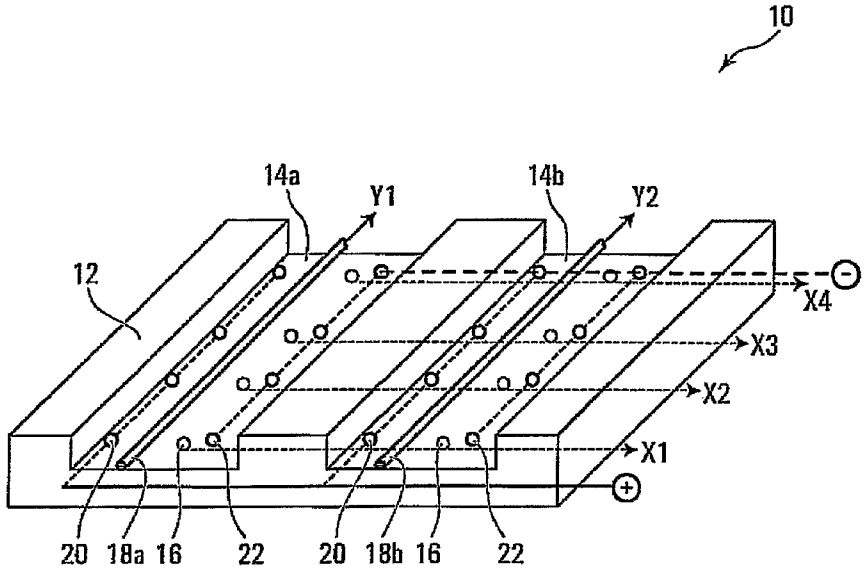
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(54) Title: ADDRESSABLE CHEM/BIO CHIP ARRAY



(57) Abstract: 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, electrodes (20, 18, 16, 22) are located within a channel (14a, 14) to allow for four terminal measurement. In another embodiment, electrodes are arranged in rows and columns and interconnected with electrolyte pads used as test sites. In yet another embodiment, electrodes are arranged in cells, with each cell including a counter electrode surrounded encircled by working electrodes. Portions of the planar surface of the chip not covered by electrolyte pads can be hydrophobic. Pads associated with the electrodes can be formed of insoluble material for binding to samples of interest.

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