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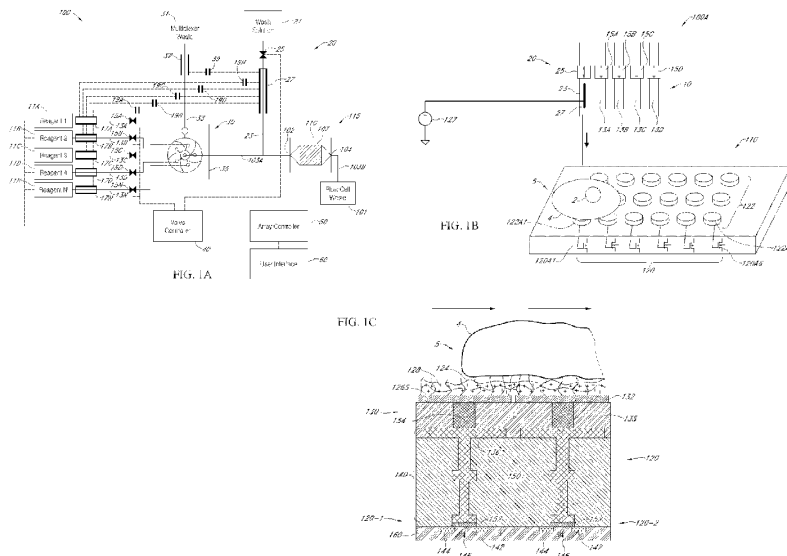
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(54) Title: METHODS FOR ELECTROSCOPIC IMAGING FOR ANALYSIS OF CELLS



(57) Abstract: Analyzing cells disposed on a sensor array surface of a ChemFET sensor array, may include flowing a solution having a step change in pH across the sensor array surface, wherein ChemFET sensors of the sensor array generate signals in response to the step change in pH to produce electroscopic image data. Multiple frames of the electroscopic image data are acquired during an acquisition time interval. Each frame corresponds to signal samples generated by the sensor array measured at a sampling time during the acquisition time interval. Each frame comprises pixels, wherein a given pixel in the frame corresponds to a signal sample from a given sensor in the sensor array. The electroscopic image data is segmented, based on characteristics of the signal samples, into cell regions corresponding to locations of the cells on the sensor array surface and background regions corresponding to areas on the sensor array having no cells.

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