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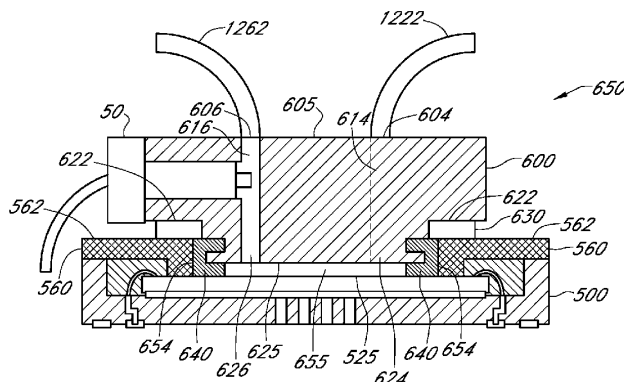


FIG. 11

(57) Abstract: Cell analysis systems and instruments provide an end user with time-course graphic and imaging data of individual cellular responses as elicited by perturbations in the cellular microenvironment and monitored by ChemFET sensors. Imaging data of cellular responses can be presented as an electroscopic image, which is an image taken at a defined sampling interval of cellular response from sensors covering a cell footprint or an image of cellular response for sensors detecting cellular effluent. Electroscopic imaging can be compared to optical imaging to provide an additional dimension of information regarding cell analysis. For example, comparing optical imaging of immunocytochemical studies using known marker panels provides a functional and phenotypic signature of data obtained for each cell analyzed using a ChemFET-based cell analysis system.

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