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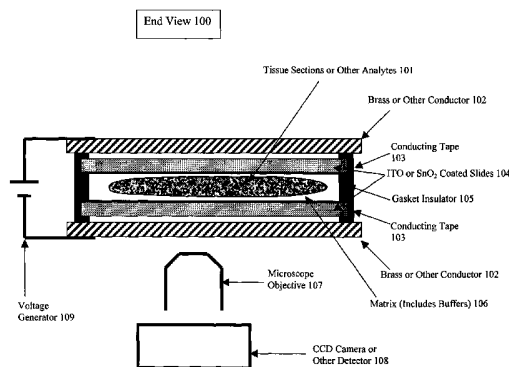
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(54) Title: SENSORS FOR BIOMOLECULAR DETECTION AND CELL CLASSIFICATION



(57) Abstract: The present invention provides a sensor device for detecting and quantifying a gene product in a cell or tissue section sample (101) by employing an analysis reagent that binds to the gene product to form a detectable product. The device comprises (a) a first and second coated plate (104), wherein the plates (104) are parallel to each other and are coated with a conductive material; (b) a first and second conductive plate (102), wherein the plates are juxtapsed over the coated plates (104); (c) a first and second conducting tape (103) connecting a first and second end of the coated plates (104) and the conductive plates (102), respectively; (d) a first and second gasket insulator (105) insulating a first and second end of the coated plates (104) and the conductive plates (102), respectively; (e) a voltage generator (109) connected to the first and second conductive plates (102) to apply an electric potential to the conductive plates (102); and (f) a detector (108). The first and second coated plates (104) provide a compartment for a cell or tissue section sample (101) and a conductive fluid. An analysis reagent is provided in the sample or tethered to a surface of the first or second coated plate (104) such that when the voltage generator (109) applies an electric potential to the conductive plates (102), the detector (108) will detect the interaction between charged materials within the cell or tissue section sample (101), migrating towards either surface of the coated plate (104), and the analysis reagent.

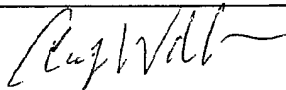


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Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)				
C. DOCUMENTS CONSIDERED TO BE RELEVANT				
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.		
A	US 5,639,671 A (BOGART et al.) 17 June 1997, see "Summary of the Invention" section.	1-33		
A	US 5,958,704 A (STARZL et al.) 28 September 1999, see "Summary of the Invention" section.	1-33		
A	US 6,210,977 B1 (SIEBEN et al.) 03 April 2001, see "Summary of the Invention" section.	1-33		
A,P	US 6,505,497 B1 (BACKMANN et al.) 11 June 2002, see "Summary of the Invention" section.	1-33		
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex.				
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