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(54) **IMPEDANCE FLOW CYTOMETRY APPARATUS**

(57) Impedance flow cytometry apparatus comprises: a flow channel for carrying a flow of fluid comprising particles suspended in an electrolyte from an inlet to an outlet; a first electrode group and a second electrode group, each electrode group providing first and second current paths through fluid flowing in the flow channel; wherein each electrode group comprises: a first signal electrode to provide to the first current path a first electrical signal of frequency, magnitude and phase; a second signal electrode to provide to the second current path a second electrical signal of substantially equal frequency and magnitude as the first electrical signal and of op-

posite phase to the first electrical signal; and one or more measurement electrodes to detect current flow in the first current path and the second current path and produce a summed signal representing the sum of the current flow in the first current path and the current flow in the second current path; wherein the first electrode group produces a first summed signal and the second electrode group produces a second summed signal; and circuitry to determine a differential signal representing the difference between the first summed signal and the second summed signal.

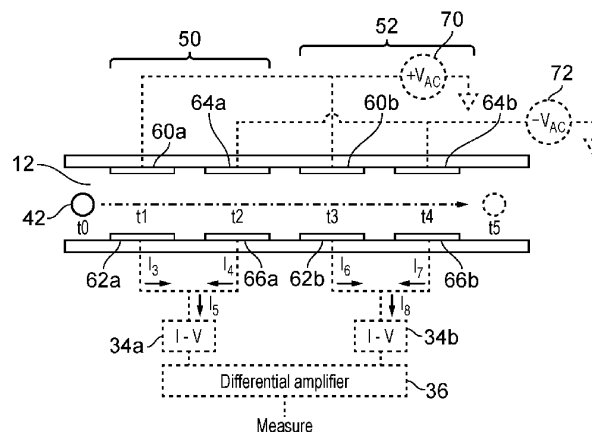


FIG. 4

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EUROPEAN SEARCH REPORT

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The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 22 May 2024	Examiner Moscelli, Nicola
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

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**ANNEX TO THE EUROPEAN SEARCH REPORT
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