(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :22/07/2023

(21) Application No.202341049595 A
(43) Publication Date : 01/09/2023

(54) Title of the invention : Method of Extracting Intracellular (Ri) and Extracellular (Re) Resistance from a Multi Frequency Bioimpedance Spectroscopy

(51) International classification :A61B0005000000, A61B0005053700, A61B0005053000, G01N0027020000, A61B0005053100
(86) International Application No :PCT//
Filing Date :01/01/1900
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :
A method of extracting intracellular (Ri) and extracellular (Re) resistance from a multi frequency bioimpedance spectroscopy 200 comprising: obtaining an impedance Zr(ω) and Zi(ω) from a fricke morse model of the cell (201); parameterising the impedance Zr and Zi using a real (resistance) and an imaginary (reactance) part of the impedance (202); using a least square method on the parameterized impedance Zr and Zi obtained from any impedance analyser to obtain an optimum frequencies (203); obtaining a data for ‘a’, ‘b’, ‘c’ and ‘d’ parameters at the optimum frequencies through a curve fitting Zr(ω) and Zi(ω) (204) ; and extracting an electrical impedance Re and Ri through the obtained results of the ‘a’, ‘b’, ‘c’ and ‘d’ data parameters, wherein this method of extracting intracellular (Ri) and extracellular (Re) resistance from a multi frequency bioimpedance spectroscopy 200 uses a minimal number of frequencies depending on a specific application and a characteristic of a tissue being measured. << FIG. 2 >>

No. of Pages : 19 No. of Claims : 6