

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411001443 A

(19) INDIA

(22) Date of filing of Application :08/01/2024

(43) Publication Date : 02/02/2024

(54) Title of the invention : A SYSTEM AND METHOD FOR RAPID AND COMPREHENSIVE ANALYSIS OF BIOLOGICAL SAMPLES

(51) International classification :G01N 27/00, G01N11/00 , G01N15/1429, G01N27/26, G01N33/50

(86) International Application No :NA  
Filing Date :NA

(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

(71)Name of Applicant :

**1)Chitkara University**

Address of Applicant :Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Patiala -----

**2)Bluest Mettle Solutions Private Limited**

Name of Applicant : NA

Address of Applicant : NA

(72)Name of Inventor :

**1)MISHRA, Rahul**

Address of Applicant :ODC-4, Panchshil Tech Park, inside Courtyard by Marriott premises, Hinjewadi Phase - 1, Pune - 411057, Maharashtra, India. Pune -----

**2)PANDEY, Sakshi**

Address of Applicant :ODC-4, Panchshil Tech Park, inside Courtyard by Marriott premises, Hinjewadi Phase - 1, Pune - 411057, Maharashtra, India. Pune -----

**3)MANTRI, Archana**

Address of Applicant :Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Patiala -----

(57) Abstract :

Embodiments of the present disclosure relates to a system (102) and method (200) for testing biological samples. In an aspect, the present disclosure discloses a system (102) for rapid and comprehensive analysis of biological samples for medical diagnostics, drug discovery, and personalized medicine. The system (102) comprises a test plate (104) made of a solid substrate. Further, the system (102) comprises one or more microfluidic channels (106) configured to load and handle the biological samples. Further, the system (102) comprises a plurality of sensors (108) embedded in the test plate (104) and configured to analyse the biological samples. Further, the system (102) comprises a signal processing unit (110), coupled to the plurality of sensors (108) embedded in the test plate (104), and configured to analyse signals from the plurality of sensors (108). The test plate (104) combines biosensing technologies to enable simultaneous measurement of diverse biological parameters.

No. of Pages : 21 No. of Claims : 10