(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :07/10/2026
(21) Application No.202631119911 A
(43) Publication Date : 16/10/2026

(54) Title of the invention : Disposable multi-channel microfluidic cartridge with integrated reference-controlled optical detection for antibiofilm screening

(51) International classification	:B01L 3/00, G01N 21/64, C12M 1/34, G01N 35/00, G01N 35/08
(31) Priority Document No	:NA
(32) Priority Date	:NA
(33) Name of priority country	:NA
(86) International Application No Filing Date	: :01/01/1900
(87) International Publication No	: NA
(61) Patent of Addition to Application Number Filing Date	:NA :NA
(62) Divisional to Application Number Filing Date	:NA :NA

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(57) Abstract :
Disposable multi-channel microfluidic cartridge with integrated reference-controlled optical detection for antibiofilm screening A disposable multi-channel microfluidic cartridge with integrated reference-controlled optical detection for antibiofilm screening is described herein. The cartridge consisting of a cartridge housing (10), a common inoculation interface (12), a fluidic distribution structure (14), a plurality of substantially parallel and fluidically isolated microchannels (18a–18e), a biofilm chambers (20a–20e), a reagent ports (16b–16e), an optical zones (22a–22e) and a common waste outlet (24). The cartridge enables rapid comparative optical assessment of biofilm response by measuring the optical signals from individual treatment channels and comparing them with the untreated growth reference within the same cartridge.

No. of Pages : 23 No. of Claims : 10