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(51) International classification	:G01N0033543000, B01L0003000000, G01N0033569000, G16H0040200000, G01N0027020000	(71) <b>Name of Applicant :</b> <b>1)NOIDA INSTITUTE OF ENGINEERING &amp; TECHNOLOGY</b> Address of Applicant :19, Knowledge Park-II, Institutional Area, Greater Noida – 201306, Uttar Pradesh, India. Uttar Pradesh India
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(57) Abstract :

The invention relates to a biosensor strip (100) for rapid diagnosis of infectious diseases. The strip comprises a sample inlet (106), microfluidic channel (101), detection zone (102), nanostructured electrodes (103), visual indicator (104), and optional electronic interface (105). It provides sensitive, specific, and rapid detection of pathogens from biological samples within minutes. The device is portable, cost-effective, and suitable for point-of-care use, enabling timely medical intervention during outbreaks and routine healthcare scenarios. Stability of reagents ensures extended shelf life without refrigeration.

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