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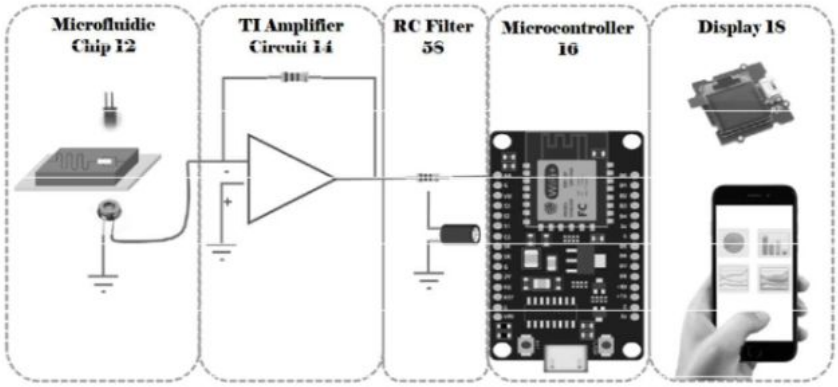
PENDING

(IN202311052190) Microfluidic device for the dual detection and quantification of ammonia and urea in blood serum



NEED

In healthcare, the accurate and simultaneous detection of ammonia and urea levels in blood serum is essential for diagnosing various medical conditions. Current methods can be complex and time-consuming, limiting their effectiveness in clinical settings.

MARKET ANALYSIS

The global medical diagnostics market is growing at a CAGR of 7.5%, expected to reach $121 billion by 2033 (source: Market Research Future, 2023). Key drivers include the increasing prevalence of chronic diseases and demand for point-of-care testing.

TECHNOLOGY OVERVIEW

This patent discloses a dual-detection device that utilizes colorimetry to measure ammonia and urea concentrations in blood serum. The device combines a monochromatic light source, a microfluidic chip, and a photodiode to provide precise voltage outputs correlating to analyte concentrations.

Target Industries

Medical diagnostics, point-of-care testing, clinical laboratories. , Healthcare device manufacturers, diagnostic test providers, microfluidic technology developers, point-of-care solution developers, and medical research institutions focused on blood serum analysis.

TECHNOLOGY KEY FEATURES

Dual detection of ammonia and urea, microfluidic chip design for analyte mixing, monochromatic light source, photodiode current conversion, adjustable calibration ranges, and clear voltage output for diagnostic use.

AT A GLANCE

- SDG 3 (Good Health and Well-being), SDG 9 (Industry, Innovation, and Infrastructure), SDG 12 (Responsible Consumption and Production)

Read more here

Technology is available for licensing/ co-development.

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