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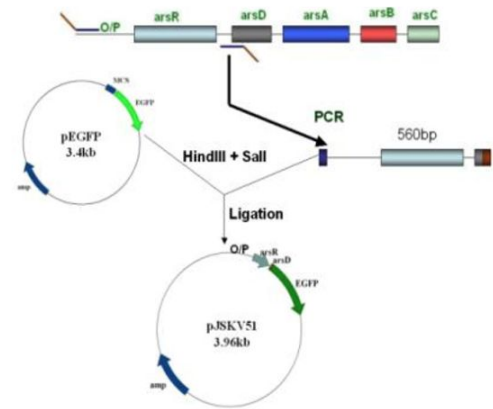# (IN430017)
Arsenic detection system, method, and test kit thereof

NEED

Arsenic contamination in water is a serious health threat, affecting millions worldwide. Current detection methods are slow and prone to human error. But what if there was a way to accurately detect arsenic levels instantly?

MARKET ANALYSIS

The global water quality monitoring market is expected to grow at a CAGR of 7.3% from 2023 to 2033, driven by increasing environmental concerns and the need for real-time water testing. (Source: Global Market Insights, 2023)

TECHNOLOGY OVERVIEW

This bioelectronic test system uses genetically modified E. coli bacteria to detect arsenic levels in water. The bacteria produce a fluorescent protein when reacting with arsenic, and the fluorescence intensity is measured to provide an accurate numerical value of arsenic concentration.

Target Industries

1) Water quality monitoring firms looking for quick, reliable arsenic detection; 2) Municipalities seeking effective methods to ensure safe drinking water; 3) Environmental agencies and NGOs working on water contamination issues.

TECHNOLOGY KEY FEATURES

Genetically modified E. coli, lyophilized bacteria, enhanced green fluorescent protein (eGFP), fluorescence-based detection, processor-based analysis, accurate results, eliminates human error.

AT A GLANCE

- SDG 6 (Clean Water), SDG 3 (Good Health and Well-being), SDG 9 (Industry, Innovation)

Read more here

Technology is available for licensing/ co-development.

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