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DEPARTMENT OF
SCIENCE & TECHNOLOGY
सत्यमेव जयते

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TECHNOLOGY
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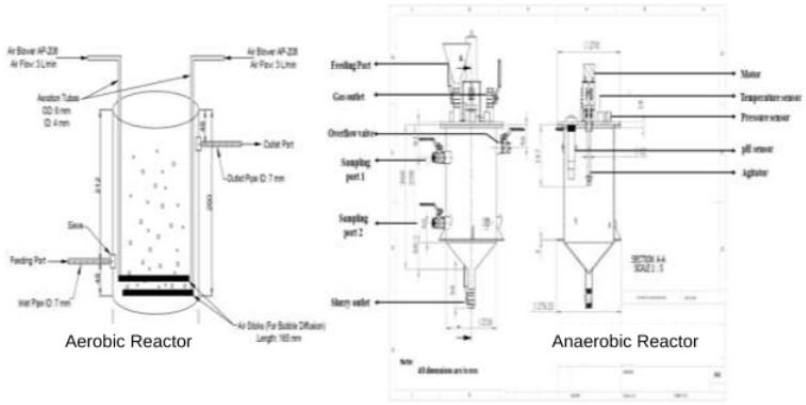
PENDING

(IN202311052489) A system for enhanced biomethanation using integrated aerobic and anaerobic reactor



NEED

Closed landfill leachate contains hazardous pollutants that are difficult to treat. Current systems lack efficient integration for aerobic and anaerobic processes to achieve optimal treatment, risking environmental damage.

MARKET ANALYSIS

The global wastewater treatment market is projected to grow at a CAGR of 6.3%, reaching $200 billion by 2033 (source: Grand View Research, 2023). Key drivers include stringent environmental regulations and demand for advanced waste treatment technologies.

TECHNOLOGY OVERVIEW

The integrated aerobic and anaerobic reactor system uses a combination of biological processes (SNAD and iSTAR) to treat landfill leachate effectively. It includes a remote monitoring system for temperature, pressure, and pH, ensuring precise control for efficient pollutant removal.

Target Industries

Wastewater treatment, environmental services, renewable energy. , Waste treatment plant operators, environmental monitoring companies, biogas production facilities, industries involved in landfill management, and wastewater treatment services.

TECHNOLOGY KEY FEATURES

Integrated aerobic-anaerobic treatment, remote monitoring system, temperature control, real-time data access, biogas production, efficient nitrogen and COD removal.

AT A GLANCE

- SDG 6 (Clean Water and Sanitation), SDG 12 (Responsible Consumption and Production), SDG 13 (Climate Action)

Read more here

Technology is available for licensing/ co-development.

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