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DEPARTMENT OF
SCIENCE & TECHNOLOGY
सत्यमेव जयते

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TECHNOLOGY
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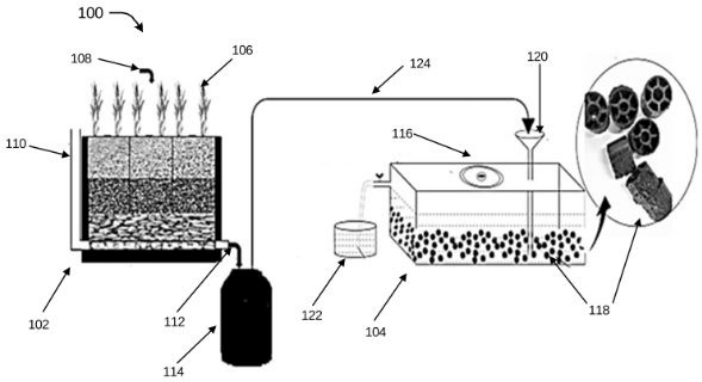
PENDING

(IN202311056365) System and method for wastewater treatment



NEED

Wastewater treatment systems often struggle with high nitrogen content, contributing to pollution and ecosystem damage. Effective nitrogen removal is crucial to meet environmental standards and improve water quality.

MARKET ANALYSIS

The global wastewater treatment market is projected to grow at a CAGR of 7.3%, reaching $150 billion by 2033 (source: Market Research Future, 2023). Increasing industrial wastewater discharge and strict regulatory policies drive this growth.

TECHNOLOGY OVERVIEW

This patented system combines a Vertical Flow Constructed Wetland (VFCW) with an Anaerobic Chamber (AC) to treat wastewater. It reduces nitrogen content through aerobic nitrification and anaerobic denitrification, enhancing water quality.

Target Industries

Wastewater treatment, environmental engineering, agriculture. , Water treatment companies, environmental consultants, municipalities, agricultural sectors requiring water treatment solutions.

TECHNOLOGY KEY FEATURES

Dual-stage nitrification and denitrification, aerobic and anaerobic bacterial action, low-energy solution, reduces nitrogen content, cost-effective water treatment, environmentally friendly.

AT A GLANCE

- SDG 6 (Clean Water and Sanitation), SDG 12 (Responsible Consumption and Production), SDG 14 (Life Below Water)

Read more here

Technology is available for licensing/ co-development.

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