

System For Waste Water Treatment

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ABSTRACT

A system (1000) and method for waste water treatment is provided. The system (1000) may include at least one storage tank (100), at least one flocculation chamber (200), at least one anaerobic digester (300), at least one aerobic chamber (400), at least one clean water circulation unit (500) and at least one anoxic chamber (600). The system (1000) and method for waste water treatment may produce useful combustible gases in the process of treating waste water..

KEY APPLICATION AREAS

1. Municipal and domestic wastewater treatment.
2. Water recycling and reuse.
3. Decentralized wastewater management.
4. Resource recovery (water and energy).
5. Environmental pollution control.
6. Sustainable sanitation systems.

POTENTIAL USE

1. Treatment of domestic/municipal wastewater to produce reusable water.
2. Decentralized wastewater treatment for residential communities, campuses, and remote locations.
3. High-volume, rapid wastewater processing with reduced treatment time.
4. Generation of combustible gas (e.g., hythane) from sludge and household food waste during anaerobic digestion.
5. Removal of COD, BOD, nitrogen, and other pollutants to obtain usable water.
6. Integrated household food waste management by co-digesting organic waste with wastewater.
7. Water recirculation and sludge recycling to improve treatment efficiency and maximize water recovery.