

Customized and Advanced Solutions



Tailored Solutions:

We design customized treatment systems specifically for your wastewater treatment needs, ensuring maximum efficiency.

Advanced G-Nanotechnology:

Our cutting-edge G-NanoTechnology effectively eliminates challenging contaminants, where traditional methods fall short.



Zero Waste, Zero Discharge:

We aim for zero waste and zero discharge in our processes, transforming even sludge into valuable materials.

Cost-Efficient Systems:

Our solutions are designed to optimize performance while keeping costs low, ensuring the best return on investment.



Investing in advanced, customized technologies is essential for reducing environmental impact and ensuring sustainable water management in the petroleum and hydrocarbon industries.

Learn about our latest products and the research pipeline, connect with us via:



Petroleum Wastewater Treatment

The petroleum and hydrocarbon industries face significant challenges in wastewater treatment.

Here are the main issues :

Heavy Hydrocarbon Contamination

High levels of heavy hydrocarbons are difficult to break down, reducing treatment efficiency by up to 40%

Varied Wastewater Composition

Wastewater composition varies significantly from oil extraction to refining, requiring flexible treatment approaches. Inconsistent composition can decrease treatment effectiveness by 60%.

Significant Achievement in COD Reduction



Complex Composition:
Diverse contaminants and emulsified oils complicate treatment.



Regulatory Compliance:
Stringent and evolving regulations necessitate advanced technologies.



Sludge Handling:
Disposal of sludge and residuals adds complexity and expense.



Technological Limits:
Existing technologies may be inadequate, needing ongoing R&D.



Water Reuse:
Meeting reuse standards and overcoming technological barriers are challenging.



High Volumes:
Large and variable volumes of produced water require tailored solutions.



High Costs:
Energy-intensive processes and advanced technologies increase costs.



Operational Challenges:
Maintenance, reliability, and skilled workforce needs are critical.



Environmental Impact:
Managing ecotoxicity and sustainability requires careful planning.

73%

Extraction stage
COD: 7000 mg/l to 1900 mg/l



69%

Processing stage
COD: 5000 mg/l to 1550 mg/l



75%

Final processing stage
COD: 4800 mg/l to 1200 mg/l



80%

Oil Refining stage
COD: 9100 mg/l to 1820 mg/l

