

## What we can offer in leachate wastewater treatment:



**Integrated Treatment Systems:** Combining multiple treatment technologies in a single system to enhance efficiency and reduce operational costs.



**Resource Recovery:** Innovating processes to recover valuable resources, such as biogas from anaerobic digestion, and clean water through advanced filtration systems.



**Automation and Monitoring:** Implementing real-time monitoring and automated control systems to optimize treatment processes and respond swiftly to changes in leachate composition.

Effective wastewater treatment in leachates is not only a regulatory requirement but also a vital component of sustainable waste management to protect our water, air, and soil for future generations.



# Leachates Wastewater Treatment

Leachates are a significant environmental challenge in waste management, heavily contaminated with both organic and inorganic materials, including sulfur compounds, making treatment complex.

*If you're involved in waste management or environmental protection, explore the latest advancements in wastewater treatment technologies. Partner with us to implement sustainable solutions that meet the unique challenges of your site.*

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





## Challenges in Leachate Treatment:



## Environmental Impact of Untreated Leachate:



**Water Contamination:** Leachate can pollute water sources, risking ecosystems and human health.



**Air Pollution:** Sulfur compounds contribute to air pollution and acid rain.



**Soil Degradation:** Leachate infiltration degrades soil quality, harming vegetation.

## Innovative G-Nano technology Solutions by GI Aqua Tech:



**Superior Contaminant Removal:** G-Nano tech efficiently removes a wide range of pollutants.



**Energy Efficiency:** Lower energy use reduces costs and environmental impact.



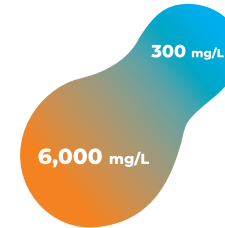
**Scalability & Flexibility:** Modular design suits various site sizes and leachate compositions.



**Long-Term Durability:** Engineered for consistent, low-maintenance performance.

## Successful leachate wastewater treatment in GI AQUA TECH

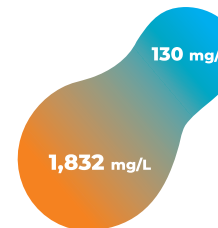
A combination of our G-Nano technology and other advanced treatment methods was implemented to deal with the complex composition of leachate.



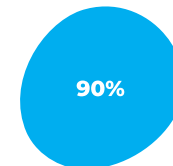
**Reduction of COD:** The Chemical Oxygen Demand (COD) was dramatically reduced from 6,000 mg/L to 300 mg/L, highlighting the effectiveness of the treatment process in breaking down organic pollutants.



**Reduction of POV:** The Persistent Organic Volatiles (POV) levels were reduced from 31 mg/L to just 0.237 mg/L, demonstrating the advanced contaminant removal capabilities of G-Nano technology.



**Reduction of TN:** Total Nitrogen (TN) levels were significantly lowered from 1,832 mg/L to 130 mg/L, ensuring the treated leachate meets strict environmental standards.



**Sulfur Removal:** Through the use of sulfate-reducing bacteria and G-Nano technology, sulfur compounds were reduced by 90%, significantly minimizing odor issues.