

# Realization of a safe, secured, and comfortable town by removing a slight amount of hazardous substances hiding in living environments

## Reduction of Bio-Risk at Critical Control Points by High-Standard Water Treatment

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### Summary :

Various bio-risk factors (Pathogens, Antibiotics, Antibiotic resistant bacteria) in excreta of human and livestock are discharged into the aquatic environment as the form of sewage treatment plant discharge, urban stormy wastewater, and hospital and livestock wastewaters. If human would be exposed to these bio-risk factors during the utilization of water resources, their health would be threatened. Therefore, reduction of the bio-risk factors at critical control points to the water environment by high-standard water treatment technologies is inevitable. Ozonation is powerful and ubiquitous tools for the control of bio-risk factors but needs cost reduction.

In this study, we investigate the pollution due to bio-risk factors in the discharges and the aquatic environment, and figure out their critical control points. In addition, we develop the high-standard water treatment technology that can effectively reduce bio-risk factors at a low cost, through innovation of ozonation technology. Ultimately, the objective of this study is the realization of society where the loss of health, life and economy can be minimized through utilization of safe water resources.

