

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

Novel VUV/MBR for Production of Water with Reliable Quality

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Summary :

We propose novel water treatment technologies utilizing nano- to millimeter-sized bubbles that enhance separation/reaction efficiencies. Production of drinking water without harmful by-products will be achieved by injecting ozone or air bubbles before vacuum ultra-violet (VUV)/UV treatment, which breaks down all the organic matters into inorganic compounds. Membrane bioreactor (MBR) is known to remove hazardous substances efficiently from wastewater. Implementation of MBR with no membrane fouling and low energy consumption will be enabled by injecting nano/micrometer-sized bubbles and millimeter-sized particles to the membrane separation tank.

