

### Treatment of organic wastewater using combined UV/TiO<sub>2</sub> photocatalytic reaction and intermittently aeration process

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Organic wastewater after anaerobic digestion of food waste by the three-stage methane fermentation system developed in this lab contained high concentration organic substances. Two stage wastewater treatment system, which are consisting of UV/TiO<sub>2</sub> photocatalytic process and biological wastewater treatment process combined to intermittent aeration reactor and anoxic reactor, was applied for treating the organic wastewater efficiently. In the first stage, wastewater was treated by three phase UV/TiO<sub>2</sub> photocatalytic system and 87.5% of T-N was removed. The second stage was biological wastewater treatment system and the optimum aeration time : non-aeration time ratio for intermittent aeration reactor was 1 h : 3 h. Through the above two stage wastewater treatment system, 94.5% of T-N, 85.7% of T-P and 87.4% of sCOD<sub>cr</sub> contained in the wastewater were removed.