

〈ノート〉

## オゾンおよび紫外線を用いた生活排水二次処理水の消毒効果の基礎的検討

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### 概 要

生活排水二次処理水を対象に回分式でオゾン処理および紫外線処理実験を行った。その結果、オゾン処理ではオゾン注入濃度、紫外線処理では紫外線照射量に応じて大腸菌群や一般細菌が顕著に除去され、初期菌数が多いほど一定菌数に低減するのに時間がかかった。例えば、初期大腸菌群が2,000CFU/mlの場合、オゾン処理ではオゾン注入濃度30mg/l、紫外線処理では紫外線照射量120mW・s/cm<sup>2</sup>で大腸菌群数がほぼ不検出となった。

## **Fundamental Study on Disinfection of Secondary Treated Domestic Wastewater by Ozone or Ultraviolet Irradiation**

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### **Abstract**

The fundamental experiments on disinfection of domestic wastewater by ozone treatment method or ultraviolet irradiation method were conducted. Both methods could remove remarkably total coliform group and standard plate count bacteria, and removal rate depended on the ozone concentration or the ultraviolet irradiation dose. The wastewater containing the large number of bacteria required the longer period to decrease the number of bacteria to some fixed level. When the initial number of total coliform group in the wastewater was 2,000CFU/ml, 30mg/l of ozone or 120mW·s/cm<sup>2</sup> of ultraviolet irradiation dose was needed to obtain the level where the total coliform group could not be detected.