



## 投菌法净化调蓄池蓄积的初期雨水

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## Treatment of Initial Rainwater in Storage Tank by Adding Microorganism

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### 摘要

探讨投菌法净化调蓄池蓄积的初期雨水的可行性.结果表明,在初期雨水中接种由特定的9种细菌和2种真菌组成的菌种可以明显提高净化效果.曝气是影响初期雨水生物处理效果重要的环境条件,只要能给接种的菌种一定的繁殖时间,即使接种菌种量较小也能获得较高的净化率.在有曝气和处理时间为24 h的条件下,1 L初期雨水中接种0.1 mL菌悬液时的化学耗氧量(chemical oxygen demand,COD)、NH<sub>3</sub>N、总氮(total nitrogen,TN)和总磷(total phosphorus,TP)的去除率分别达到71.2% 55.3% 51.1%和82.6%.

关键词: [初期雨水](#); [投菌法](#); [净化](#); [调蓄池](#)

### Abstract:

In order to expand the purification function of rainwater storage tank, feasibility of adding microorganism to purify initial rainwater in storage tank was studied. The results showed that the purification effect was significantly improved by adding microorganism including 9 bacteria species and 2 fungal species into initial rainwater. Aeration was an important environmental factor that greatly influences the biological treatment effect. A high purification rate was obtained even if the dosage of microorganism added to the initial rainwater was small so long as the time for microorganism growth was enough. Under the conditions of aeration, 24 h treatment time, and 0.1 mL microorganism inoculating in 1 L initial rainwater, the removal rates of chemical oxygen demand (COD), NH<sub>3</sub>N, total nitrogen (TN) and total phosphorus (TP) were 71.2%, 55.3%, 51.1% and 82.6%, respectively.

Keywords: [initial rainwater](#); [adding microorganism method](#); [purification](#); [storage tank](#)

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