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论文

# 上覆水溶解氧水平对苏州城市河道底泥吸附/释放磷影响的研究

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摘要：

为了解上覆水体中溶解氧水平对底泥释放磷的影响，采用室内静态模拟的方法，控制在无外源污染的情况下，模拟水体的三种溶解氧水平范围，好氧、厌氧和自然状况，研究不同的溶解氧水平对底泥释放或吸附营养盐的影响。研究结果表明，溶解氧小于0 5 mg/L的厌氧状况能加速底泥中磷的释放，溶解氧大于5 0 mg/L的好氧状况则抑制底泥中磷的释放。因此要提高水质，降低内源负荷（底泥中）磷的释放，应该控制水体中的各种耗氧物，提高水体的溶解氧水平。

关键词： 溶解氧;底泥;磷;释放;吸附

## Influence of dissolved oxygen in overlying water on releasing/absorption of phosphorus from sediments from Suzhou river, east China.

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Abstract:

The influence of different levels of dissolved oxygen (anaerobic, aerobic and natural) in overlying water on the release or absorption of phosphorus from sediment was studied under static state in laboratory without outer input. Through the experiment, we conclude that phosphorus is apt to release from sediment under anaerobic condition (DO<0 5 mg/L); on the other hand, maintaining higher level of DO (DO>5 0 mg/L) in water is essential for controlling the release of phosphorus from sediment. Therefore, we should control the quantity of oxygen consumers and increase the level of dissolved oxygen to improve the water quality and to reduce the phosphorus release from sediment.

Keywords:

Key words: dissolved oxygen; sediments; phosphorus; release; absorption

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