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生物除磷污泥厌氧释磷特性研究

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Abstract: Anaerobic phosphorus release characteristics of two sludges from two different sewage treatment systems were investigated. The objectives of the study were to identify the existence of identifying phosphorus-releasing bacteria. SBR1 , sludge, the distribution of SBR in biological nutrient removal and enhance the identifying phosphorus released at 4~24 hrsanaerobic. Stage analysis confirmed that the average amount of uptake accounted for approximately 73%. The total amount of uptake, and the rate of amount of uptake rate in section 1 uptake were 4mg/g MLSS, 1h additive, stress consistent in the amount phase and different organic substrate introduced into the anaerobic phase had significant effect on the amount of uptake. Incorporated with concentration of PO4 processes, good removal efficiencies of COD, phosphorus, ammonia and total nitrogen , 94 .8%, 93.5%, 98% and 79.5%, respectively , could be achieved in the anaerobic system, and aerobic energy consumption was saved 45%. By controlling the nitrate nutrientin flow in the anoxic zone, anoxic P uptake could be enhanced, which solved the competition for organic substrates among phosphorus accumulating organisms and denitrifiers successfully under the SNR-testing conditions. Therefore, it seemsanaerobic treatment plants the second system should be applied according to the potential benefits to optimize the operation.

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