



BIOLOGICAL PHOSPHORUS REMOVAL IN A HIGH PERFORMANCE SINGLE REACTOR

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Abstract

The possibility of biological phosphorus removal (BPR) was studied using a lab-scale single reactor the same as SHARON process. Up to now, there has been no investigation of the feasibility of SHARON process for the purpose of phosphate removal. The optimal operation conditions were established to obtain highest removal rates. Under the experimental conditions, the phosphorus concentration dropped from an influent concentration of 1000 mg/L to levels around 0.1 mg/L or less. It was concluded that the process is efficient for the phosphorus removal from wastewater. The findings of this investigation potentially provide valuable information for the future management and remediation of phosphorus enriched wastewater and waters.

Key words: single reactor, phosphorus, wastewater, biological treatment, SHARON process

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