

Investigating the Efficiency of Granular Sludge for Recovery of Phosphate from Wastewater

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Abstract : This study investigated the efficiency of granular sludge for phosphorous (P) recovery from wastewater. A laboratory scale sequencing batch reactor (SBR) was operated under alternating aerobic/anaerobic conditions to enrich a P accumulating granular biomass. This study showed that an overall 45-fold increase in P concentration could be achieved by reducing the volume of the P capturing liquor by 5-fold in the anaerobic P release phase. Moreover, different fractions of the granular biomass have different individual contributions towards generating a concentrated stream of P.

Keywords : granular sludge, PAOs, P recovery, SBR

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