Microalgae modeling in water resource recovery facilities - Toward a consensus

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Microalgal modeling in water resource recovery facilities

Motivation

Mimimal resource recovery systems could significantly advance nutrient recovery from wastewater by achieving efficient concentrations of nitrogen and phosphorus below the current limit of technology for nutrient recovery. The advancement of algal treatment processes and their broad adoption, however, is contingent upon the ability to reliably and accurately simulate full-scale performance in response to reactor and process design, influential composition, and environmental conditions. To advance the broader implementation of algal process models by practitioners, it is critical to establish a unified modeling framework that is capable of accounting for relevant process and environmental conditions while simultaneously avoiding unnecessary complexity.

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