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Experimental and mathematical simulation study on the effect of granule particle size distribution on partial nitrification in aerobic granular reactor

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Highlights:

- Particle size distribution (PSD) was included in the biofilm model for granule sludge reactor
- Wide PSD spectrum was included
- Effect of granule PSD on the partial nitrification was examined
- High nitrite oxidizing bacteria (NOB) presence was found in granules less than 50 μm

Abstract

The granules in the aerobic granular sludge reactor usually follow certain particle size distribution. In the previous studies, the average granule diameter was usually assumed in the model simulations. In this study, the impact of granule particle size distribution on the partial nitrification in the aerobic granular reactor was examined both in experiment and

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