

부분 아질산화 full-scale 연속회분식반응기에서 Air-lift granulation을 고려한 ASM type 모델링
및 동특성 변수 보정 프로토콜

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In this study, the partial nitrification (PN) process was designed to enhance the removal efficiency in wastewater treatment plants. For achieving a successful PN process at high nitrogen influent conditions, a high pH of around 7.5 to 8 for high free ammonia concentration, and high AOB for the growth of total bacteria population in the reactor are needed. The sequential batch reactor (SBR) with air-lift granulation (AGU) was modeled as activated sludge model (ASM)-type and then calibrated based on full-scale plant data set to enhance the aeration in the reactor, and to improve the nitrite over ammonia rate from the PN output. **Acknowledgments:** This work was supported by the National Research Foundation (NRF) grant funded by the Korean government (MSIT) (No. NRF-2017R1E1A1A03070713), Korea Ministry of Environment (MOE) as Graduate School specialized in Climate Change, and Korea Ministry of Environment as "Prospective green technology innovation project (2020003160009)".