

# Mainstream anammox in a novel A-2B process for energy self-sufficient municipal wastewater treatment with minimized sludge production

## Objective

- To develop a novel mainstream anammox process
- To achieve energy self-sufficiency of used water reclamation with minimized sludge production

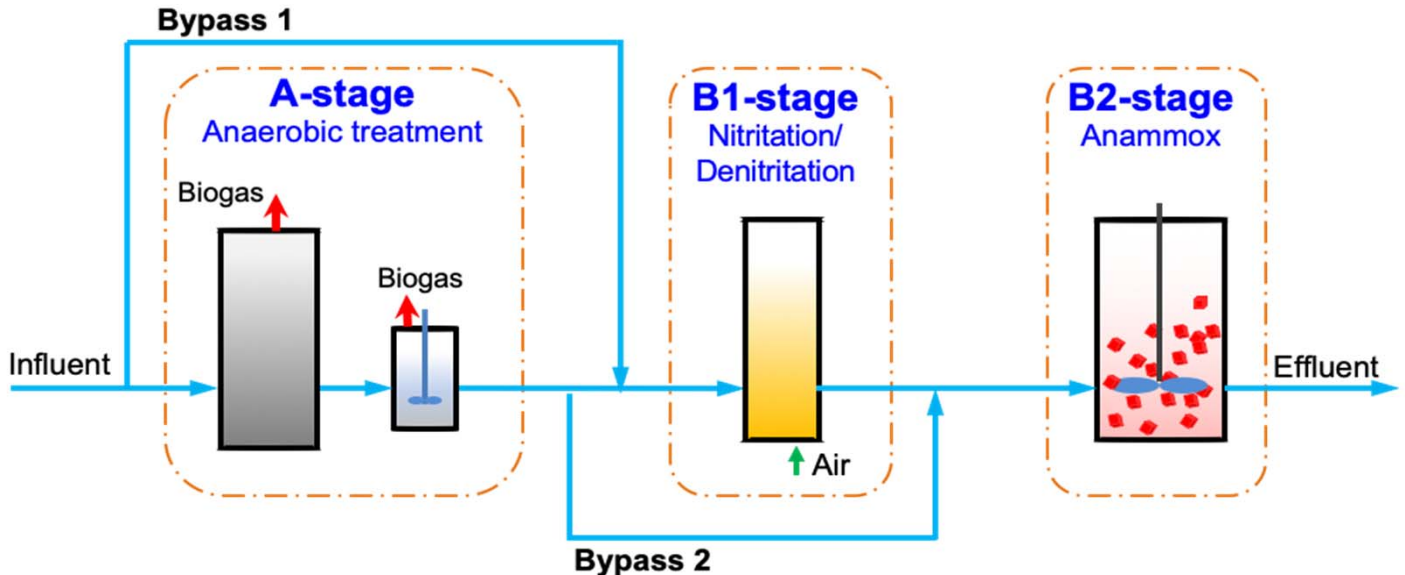
## Team members

Prof LIU Yu; Dr GU Jun; Dr ZHANG Meng; Dr YANG Qin

## Background

- Conventional activated sludge (CAS) process has been challenged by its high energy consumption and excess sludge production
- The CAS process is built on the philosophy of bio-oxidation
- The novel A-B process may offer a feasible engineering option for enhancing energy recovery at A-stage, while reducing energy consumption at B-stage

## Process flow



## Technical features

- Enhanced methane production directly from influent COD
- Reduced energy consumption due to low aeration demand
- Minimized sludge production
- Stable performance with high COD and nitrogen removal