



Department of Civil and Environmental Engineering
Yoshimura Chihiro

Aquatic Environmental Science

9. Nutrient Cycle

1. Nutrient and Essential Elements
 - Macronutrient, Micronutrient
 2. Importance of Nutrients in Aquatic Systems
 3. Nitrogen Cycle
 - Fixation, Assimilation, Nitrification, Denitrification
 - Nitrogen Transformation Model
 - Nitrogen-related Kinetics
 - Stable Isotope in Biogeochemistry
 4. Phosphorus Cycle
 5. Modeling Biological Transformation
 6. Exercise
-