

NITROGEN CYCLE IN HIROSHIMA BAY SEDIMENT; THE ROLE OF NITRIFICATION AND DENITRIFICATION PROCESSES

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A simulation model to express nitrogen cycle in the sediment of Hiroshima Bay was developed in order to understand its seasonal change in transformation and transportation processes. The model output revealed that coupled nitrification-denitrification processes in the sediment is an important pathway to remove excess nitrogen from Hiroshima Bay. This was confirmed by calibration and validation with monitored data on both organic and inorganic nitrogen concentrations in the sediment from field observation.