

## ABSTRACT

WATER TREATMENT SYSTEM, AERATION AMOUNT CONTROL DEVICE, AND  
AERATION AMOUNT CONTROL METHOD

A water treatment system (100) includes: a first  
5 water quality measurement value acquisition unit (50) which  
acquires a water quality measurement value at a first time  
point, of treatment target water; a water quality variation  
pattern acquisition unit (40) which, from time-series change  
in a water quality of the treatment target water in advance,  
10 acquires a plurality of water quality variation patterns each  
according to a condition at a time of acquisition of water  
quality information acquired in advance; an inflow water  
quality estimation unit (30) which selects a water quality  
variation pattern that matches an acquisition condition for  
15 the water quality measurement value at the first time point,  
from the water quality variation patterns in the water  
quality variation pattern acquisition unit (40), and  
estimates an inflow water quality value subsequent to the  
first time point from the selected water quality variation  
20 pattern; and a control unit (60) which controls an aeration  
amount from a blower (20) to a reaction tank (10) subsequent  
to the first time point, on the basis of the estimated inflow  
water quality value.

Fig.1