C125940 : MAJOR INTER-DEPARTMENT OF ENVIRONMENTAL SCIENCE
KEY WORD : RBC/ROTATING BIOLOGICAL CONTACTOR/RESTAURANT/WASTEWATER
PONGRAPIN YUWAPUN : TREATMENT OF RESTAURANT WASTEWATER BY RBC SYSTEM.
THESIS ADVISOR : PROF. THONGCHAI PUNSAWAD, Ph.D., 117 pp.
ISBN 974-582-046-6

The treatment test unit used in this study was a prototype 4- stage RBC plant with the media diameter of 0.5 m., media surface 22.5 $m.^2$, media submergence 35 percent and reactor volume of 0.2 $m.^3$ The feed wastewater was taken from the final tank of 3-tanks-in-series grease trap of a 700 $m.^2$ messhall of a local university.

The average BOD and COD concentration of feed water to the RBC process were 490 and 606 mg/l, respectively. With the BOD loading of 9.36 to 28.22 $g/m^2.d$ or the equivalence of only 1.57 to 0.52 hours in the RBC unit, the BOD removal efficiency was found to be more than 80 percent, However, at the BOD loading 40.72 $g/m^2.d$ the BOD removal efficiency was only 40.26 %. As a result, optimum BOD loading for RBC treatment of wastewaters from restaurants should range between 9.36-28.22 $g/m^2.d$