## The Effect of pH on Organic Acids Production Tendency in the Anaerobic Acidogenic Fermenter Using Food Wastes

Jung Kon Kim<sup>1</sup>, Gun Hyung Cho<sup>1</sup>, Hyo Ki Jung<sup>1</sup>, Si Wouk Kim<sup>2</sup>

Department of Biomaterials Engineering<sup>1</sup>, Department of Environment engineering<sup>2</sup>, Chosun

University, Gwangju 501-759, Korea

TEL: +82-62-230-6649, FAX: +82-062-225-6040

## Abstract

The effect of pH on organic acids production tendency in the anaerobic acidogenic fermentation has been monitored. The substrate used in this study was food wastes. pHs of different fermenters were maintained at 4, 5 and 7, respectively. When pH was controlled to 4, large amount of lactic acid was produced, while acetic, propionic, and butyric acids were produced in a small amount. However, increasing of butyric acid production was remarkably occurred when pH was maintained over 5. Interestingly significant amount of acetic and propionic acids were produced when pH was controlled at 7. In this condition lactic acid was not produced.