

### Performance of mediatorless microbial fuel cell with carbon nanotubes on graphite felt electrode

노성희, 박현진, 김선일\*

조선대학교

(sibkim@chosun.ac.kr\*)

A microbial fuel cell (MFC) is a bioelectrochemical system using electrochemically active bacteria that can oxidize organic materials and exogenously transfer electrons to an electrode. The power output of the MFC is influenced by the electrochemical performance of the anode. In this study, we designed a set of mediatorless two-chambered MFCs and investigated the performance of electrode architecture by coating high surface area carbon nanotubes (CNTs) onto a graphite felt. The MFC system designed for wastewater treatment show the promising properties of CNT that addition of CNT to graphite felt electrode greatly enhanced the voltage output, maximum power density.