# Electrochemical Properties of Layer-by-Layer Self-Assembled Carbon Nanotube as Electrode Material for Microbial Fuel Cells

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The anodic material, which contains a matrix for the attachment of the microorganisms, is usually a limiting factor in power production in an microbial fuel cell (MFC). In order to solve this problem, one effective approach is to design and develop hybrid materials based on carbon nanotubes (CNTs) and combining with other carbon materials. Recently, the layer-by-layer (LBL) self-assembly technique via electrostatic force or donor-acceptor interactions has emerged as a very attractive way to solve this problem. The LBL method is a simple but effective approach to develop a homogeneous and stable CNT-based electrode for MFC systems. In this work, CNT-modified electrode was constructed using the LBL self assembly method by alternately assembling positively charged polyethyleneimine and negatively charged CNT based on electrostatic interactions.